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ABSTRACT

This book reports the proceedings of the 1966 convention of the International Reading Association. It presents papers from that part of the convention concerned with the application of research results to classroom procedures and develops the following topics: elementary and secondary education, reading specialists, and the administrator's role in reading instruction. (RL)

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COMBINING RESEARCH RESULTS AND GOOD PRACTICE

MILDRED A. DAWSON, *Editor*

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FOREWORD

THIS VOLUME, Part Two of the *Proceedings,* was deemed necessary because of the growth of the annual convention and hence the number of papers presented there. One particular part of the Dallas Convention, 1966, labeled "Combining Research Results and Good Practice" seemed a logical unit for a separate publication.

Perhaps there are no two educational areas which need fusion as much as research and practice. Certainly this applies to the reading field. By offering a single volume containing summaries of symposia and panels which were devoted to this idea, it is hoped that interest and knowledge will be stimulated toward actually applying more research results to classroom procedures.

Dr. Mildred Dawson, 1966 president-elect and program chairman of the convention, has carefully and effectively edited the presentations, so that those who were at the convention might have the ideas in permanent form and those who were unable to attend the convention might profit from the concepts and suggestions offered there. The International Reading Association is grateful to Dr. Dawson for taking her time and energy to render this added service to the organization and to educators in general.

DOROTHY KENDALL BRACKEN, *President*
International Reading Association
1965-1966

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COMBINING RESEARCH RESULTS AND GOOD PRACTICE

ELEMENTARY LEVEL

INTRODUCTION

THERE IS NO DEARTH of research studies in the teaching of reading. In the *Reading Research Quarterly*, Volume I, No. 2, Helen M. Robinson and others reported on 236 investigations related to reading between July 1, 1964 and June 30, 1965. Research in reading varies widely in the carefulness and precision of the design, the presence or lack of control groups, and the extent to which the findings reported are generalized beyond the conditions of the study. Infrequently a study is repeated to see whether similar results would continue to obtain. All too often the results of earlier studies obtained before newer scientific techniques were evolved continue to be quoted at face value. Only recently are cooperative investigations being undertaken with joint planning and controls so that comparisons between studies can be made. For example, *The Reading Teacher* for May, 1966, summarizes twenty of the twenty-seven first grade reading studies sponsored by the U. S. Office of Education. At the coordinating center established at the University of Minnesota, statistical analysis of the data is still being made. Even so, the variations in procedures, scope, and nature of the investigations will make it impossible to compare directly one initial method of teaching reading with another.

In the face of the hundreds, indeed thousands, of investigations in the field of reading and the variety of topics under discussion and study, the authors of the papers for this bulletin on combining research and good practice listed the important areas in which they believe teachers seek answers on which to anchor classroom practice. Then, each chose the topic on which he wished to review research. Each author selected for his paper the studies he considered most relevant and crucial.

In his paper A. Sterl Artley thoughtfully considers the place of reading in the kindergarten. He seeks answers to such questions as: How early should children be taught to read? What is the place of reading readiness and beginning reading instruction in the kindergarten? For which children?

Roma Gans deals with the effects on children of some of the current emphases of beginning reading materials and methods. She makes an informed plea that long-range effects on not only reading progress but also on intellectual and total developmental patterns of children be considered in appraising some of the single, skill-centered approaches.

When Margaret K. Hill explores what guidance research can offer in reading in the content fields, she points out the complexity of skills involved in comprehension and how the importance of a given skill may vary from one subject to another. From the research she quotes, it is evident that guidance in reading is not limited to the primary grades, but is an important responsibility of every teacher who guides children in using books.

Finally, Mildred Letton Wittick considers a topic of much current interest—the reading achievement of culturally disadvantaged children. The importance of language development and sensory experiences in the early years is rightfully stressed. There is growing evidence that the school program for such children must be critically reappraised.

It was impossible to cover exhaustively all important aspects of reading, or, indeed, even the ones that were selected. Every thoughtful reader, however, will note that there is considerable research available to influence the teacher as she guides the reading growth of boys and girls. In each paper the application to classroom practice is either implied or expressly stated.

There are other problems of great interest to teachers to which they and their leaders must seek thoughtful answers. Included would be:

What is the place of a basal reading program in the teaching of reading?

To what extent can and should reading be individualized?

To what extent should reading instruction be integrated into a total language arts approach?

What is the place of voluntary free reading in developing both reading power and reading interests?

To what extent does the availability of a wealth of good books augment reading growth? What library guidance is essential at the elementary level?

What effect should the growing knowledge of our language and how it works have on the way reading is taught?

What methods of word identification and analysis will enable children to do thoughtful reading in a reasonably short time and will continue to be serviceable tools?

In response to all these questions there is at least partial evidence from research. For all of them additional research is needed.

Confusing as the situation must seem to a busy teacher, as a professional person he must be able to evaluate and interpret studies for himself. He will not, nor should he, be content to accept a "recipe" for teaching children to read. Happily, he will add his particular insights into the process as he works with boys and girls to enable them, through competence and interest in reading, to become lifelong learners.

—ALTHEA BEERY, CINCINNATI BOARD OF EDUCATION

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1. Reading in Kindergarten

ALONG WITH the controversies over phonics, programed instruction, and the inital teaching alphabet, the question of reading in kindergarten has aroused considerable discussion. On examination, however, this question is only part of a much broader controversy having to do with pre-school education—namely, the place and function of the kindergarten as a segment of the educational sequence.

Advisability of Introducing Reading in Kindergarten

Many educators are raising the question of whether the needs of today's pre-schoolers are being served adequately by a kindergarten program which they contend is still operating under a philosophy little changed from that current in the twenties and thirties. Critics contend that five-year-olds have acquired larger vocabularies, have lived in the verbal environment of television, have traveled, and have lived in homes where parents have been able to surround them with the advantage of a higher standard of living. They show that some children are already reading upon entry into the first grade, and that others are ready for a more specific type of readiness program than that traditionally provided in kindergarten. Consequently they challenge those responsible for early childhood education to rethink the kindergarten program and to formulate goals and practices more in keeping with the current needs of many young children. Among these critics are Rader (13:137-42); Hillerich (12:569-73); Austin (1:57, 90); Sutton (15:297-300); and Durkin (8:3-7). Because reading experiences offer an opportunity for intellectual stimulation and continued language growth, critics contend that their use for young children should not be denied.

Possibly the major question of whether reading should be introduced in kindergarten and, if so, to whom, can be answered best by applying to the five-year-old group what we already know and believe about individual differences. For years we have been saying that reading instruction should be postponed for some entering first graders because they are not ready to succeed in initial instruction until after a prolonged period of readiness. These children may be limited in intelligence, conceptual background, oral language facility; they may be lacking in motivation and perceptual skills. These children may be in need of a full year of an enriched readiness program with a systematic reading program postponed until they are nearer seven. By the same token, some five-year-old children at the opposite end of the distribution, because of strengths in the same areas where there are limitations for the other groups, will be ready for, and can profit from, the intellectual stimulation afforded by an upgraded readiness program, and eventually by reading instruction itself. In other words, there would be logic to the extension of the readiness concept downward *for some* in the same way that we extend it upward for others.

Durkin (*10*:7-16) takes an unequivocal stand on the question of reading in kindergarten. As a result of data that she has accumulated from the studies of early readers she says that "the only possible and honest answer for me is to say definitely and even enthusiastically that *some* five-year-olds are more than ready to read, and secondly, that kindergarten has the responsibility of offering them the opportunity to learn." On this same point Sutton (*15*:297-300) contends that we have underestimated the reading potential of many young children and, in the same way that it is unwise to force reading on all because some are not ready for it during the kindergarten year, it is equally "silly and wasteful to withhold instruction in reading from all because some are not ready for reading at five years of age."

As a result of their extensive study of reading instruction in the United States, Austin and Morrison (*2*:219) in the second Harvard report, *The First R,* recommend "that all school systems establish kindergartens; that appropriate reading activities be initiated for those children who are already reading and for those who appear to be ready to begin reading, and that the kindergarten program be adjusted accordingly to each child's strengths and weaknesses as revealed by an appraisal of readiness."

Thus we see from a sampling of the authorities who are speaking to this question that there is consensus in their thinking that *for some children,* for those who evidence readiness, reading instruction might well be initiated during the kindergarten year. Of course, there is the assumption too that the kindergarten program should include definite provisions for the promotion of those skills and understandings that put a foundation under the reading program, whether reading is initiated for some in kindergarten or for the majority somewhere in grade one.

Nature of Current Programs in Reading

What is the nature of those kindergarten programs that include some type of pre-reading or reading instruction, and what are their results? Possibly the program most widely advertised is the one in Denver which is being conducted under the direction of Joseph Brzeinski (*3*:5058; *4*:16-21). This program, initiated in 1960 and carried out over a five-year period, involved 61 control kindergarten classes and a like number of experimental classes. Children in the control groups followed the regular kindergarten program while those in the experimental groups received instruction in "beginning reading activities" for approximately twenty minutes each day. The reading activities included practice in auditory and visual discrimination, in distinguishing letter forms and letter names, and in using beginning consonant sounds with contextual clues to identify a printed word.

At the end of the kindergarten year the structured program seemed to be more effective than a program providing incidental readiness instruction. Though both groups made gains, there was a difference of 8.9 test score points between the groups in favor of the experimental groups. At the end of the first grade the test scores suggested that the experimental groups scored significantly higher than did the control groups who had the regular kindergarten program. Moreover, optimum reading achievement was obtained where the first grade program was adjusted to take advantage of the gains made through the early start in kindergarten. Significantly though, Brzeinski points out, not all children in the experimental groups progressed at the same rate. Some children made little or no progress in acquiring the skills taught through the program while others were able to read pre-primers and primers during the last six weeks of the program.

In answer to the question frequently raised as to whether early readers have more adjustment or sensory problems, Brzeinski indicates that virtually the same percentage of children in both groups showed corrected vision, hearing loss, and adjustment problems. He adds that "teaching beginning reading in kindergarten neither created nor prevented problems in these areas."

Sutton (*14*:234-40) reports an interesting action study carried out in

Muncie, Indiana, to determine the effect of kindergarten instruction in reading for those who showed an interest in it. A reading center consisting of assorted pre-primers and easy-to-read books was set up in two kindergarten rooms. Any children who showed an interest in the books were given ten to fifteen minutes of instruction daily. It is readily evident that this was a much less structured program than the one described by Brzeinski. Of the 134 pupils in the kindergarten, 46 took advantage of the reading instruction and at the end of the year the mean grade level of the reading group was 1.78.

A later report by Sutton (*16*:192-96) followed these 46 early starters into grade one. In January of grade one the kindergarten readers had a mean grade score of 2.6 and the kindergarten non-readers of 1.7; in June their mean reading level was 3.6 in comparison to the kindergarten non-readers of 2.6. Of course this study merely shows what some children who are verbally oriented can do in reading when given the opportunity in kindergarten. It does not show what they might have done had reading instruction been postponed for them until they entered grade one. Regardless of what it might have been, it does appear that an injustice would have done to these 46 children had the teachers failed to capitalize on the opportunity for reading at an early age.

An interesting sidelight on the study reported by Sutton came about as a result of first grade class assignment of the 46 early-readers. Twenty-five of them were assigned to a high reading ability homogeneous class, while the remaining 21 were interspersed among the other three regular first grades. At the end of grade one the children who comprised the homogeneous group earned a mean reading score of 21.5, while those in heterogeneous groups earned 15.4. Apparently early-starters, placed in a group where they capitalize on their early start, can be expected to do better than similar children placed in groups where they must mark time while others are getting started.

Georgiady, Romano, and Baranowski (*11*:306-11) report a carefully executed study into the readiness of kindergarteners for initial experiences in recognizing words and symbols. One hundred children were placed in four classes: two control and two experimental. The children in the experimental groups were instructed in memorizing a set of 33 items consisting of discrete words and pictures. Final results indicated that children in the experimental groups made gains twice as great as those in the control groups.

Though this study shows that kindergarten children can, with deliberate effort, be taught to recognize and remember picture and verbal symbols, its significance shows up in the comments made by the participating teachers. Some children, they reported, seemed to take pleasure in and were challenged by the learning of symbols. Other children in the experimental groups seemed bored by the whole process and chafed at having to learn symbols while their friends were having fun painting or doing other interesting things. The teachers felt some children showed a lack of readiness manifested in inattentiveness, boredom, nail-biting and even crying at having to participate. Such reactions occurred in some children even though they scored high on the test. The teachers concluded that instruction should be offered selectively to those who, on the basis of a screening test, evidenced sufficient maturity to undertake that kind of work.

Even with the success of symbol learning as is shown in this study, and without the critical comments of the experimental teachers, I am sure that the authors would not recommend that reading be taught in the manner carried out in the experiment, nor to all children. This study dramatizes, it seems to me, the fact that symbol learning is selective and that it cannot be prescribed for all children. It also offers stimulating thought on the purposes of the kindergarten program as it relates to the needs of young children. As Durkin (*6*:23-27) comments, it should be a program that neither frustrates nor bores. It should "stimulate the most able child without undermining the least able in the group."

Durkin (*9*:76-80) has been reporting periodically on the progress of the 49 Oakland children who had learned to read prior to entrance into the first grade. You will recall that in this study (*5*:163-66) the mean reading level of the group on entrance into the first grade was 1.9. At the end of grade one the mean grade level was 3.7, and at the end of grade five it was 7.6. Moreover, further analysis of all her data collected on these children indicates that early achievement in reading had no detrimental effect on subsequent achievement. In fact, she says, "some of the data suggest that an earlier start in reading leads to greater achievement in future years."

Durkin rightly points out than one should not hastily assume that her findings offer support for earlier school instruction. Her 49 children were those who learned at home. They were highly verbal, they wanted to learn to read, and there was someone in their environment who took an interest in answering their questions. Neither, she says, do her findings discourage school help prior to first grade. "The intent . . . is to encourage appropriate school help for pre-first-grade children who are ready to profit from it." Elsewhere Durkin (7:274-76) writes, "If the kindergarten program is to be successful in preparing children for first grade, then many of the activities should be very directly related to the later job of learning to read. For those children who are already reading, the responsibility of the kindergarten then becomes one of helping them develop into even better readers."

From the studies referred to here as well as from others, which neither time nor space permits us to discuss, there seems to be considerable agreement among the writers that the kindergarten has a definite role to play in promoting readiness for reading, and that the program must do more than pay lip service to this goal. For the majority it must provide more than games, coloring, singing, rhythms, and storytelling. Although for some children, particularly the culturally deprived, about whom we are now learning more, this may be as far as the kindergarten program should go. For another group a program that offers the opportunity for a more mature level of language growth will be both the opportunity and responsibility of the kindergarten teacher.

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2. The Effect of Current Emphases on Beginning Reading Materials and Methods on the Recognition of Individual Differences

THE TOPIC, "The Effect of Current Emphases on Beginning Materials and Methods on the Recognition of Individual Differences" is an exceedingly important one. For well over one-half century the differences among children (and all humans) have been studied and defined. Materials and methods have been created to assist teachers in meeting the variations of children in their classes. Teachers have frequently been evaluated in terms of their ability to fit their teaching to individual differences.

To report on the *effect* of present-day emphases specifically in the teaching of beginning reading poses a problem to one who accepts the position that to study effects of given experiences on young children especially requires a three-to-five year period of time. Also, to be valid, significant relevant psychological factors, especially those pertaining to the level of children's thinking, must be included. These two conditions are difficult for school leaders and reading specialists to meet because budgets are too restricted and personnel resources too limited.

The assumption, accepted or implied, that learning to read requires mechanical skills separate from the total thinking and intellectual development is a theory which I do not accept. Neither am I willing to accept that teaching reading *via* controlled responses can be properly evaluated solely through the correctness of the responses (4). Studies such as the one now being conducted by Almy (*1*), one of the first longitudinal studies of certain elements of young children's thinking, need to be carried out specifically related to the field of reading.

The data coming off the press daily which cite the pros and cons of experiments with new materials and approaches for teaching reading to beginners after only one or two years of experimenting are not adequate.

Studies testing the Piaget Theory of the three levels of thinking of children between five and six, and the research on the relation of language and intellectual development *via* experiences reported by Hunt (*4*) make provocative reading on this point.

Although major questions of effect remain unanswered, there are some observable trends. The first is the tremendous stir in kindergarten, first, and second grade over the teaching of reading. There is widespread interest on the part of teachers and a tendency to inquire and to explore. This in turn has created more stimulation in classrooms and has had a similar stimulating effect on children. The stagnant kindergarten programs, short on vital intellectual life, long on routine, have been jarred. Some, regrettably, have traded one stultifying emphasis for a too narrow reading readiness program equally stultifying for agile learners. In neither is a child encouraged to develop his growth as a thinking, intuitive, creative child.

The emphasis on teaching even the pre-schoolers to read has stimulated parents, some of whom eagerly report on their success in teaching an infant to read. Barring the extremes, the present interest in intellectualizing kindergarten programs may result in increasing the number of psychologically sound programs for five-year-olds, programs in which the nimble will extend their growth in beginning reading while not being deprived of the experiential base so essential to their growth in language and thinking. However, one point needs to be emphasized here, in the words of Almy (1:130): "no specific instruction will hasten the transition from one level of thinking to the next." This casts doubt on the panacea approach, namely, "Given this material and this method, all children of an age or grade will learn to read."

More than any other emphasis that seems to affect classroom practices is the publicity given specific approaches. The advertisements, directly or implicitly, create the belief that one set of materials and specified methods will fit a given classroom group. Many teachers and their leaders accept this "hard sell." The result is multiple and unfortunate. Teachers become less inclined to try to meet the individual differences, assuming all materials and methods will be right for each child, some now, some at a later time. Furthermore, an uncritical attitude seems to accompany this belief. Brand names of materials now all too often get "rave reviews" hardly becoming to those in a learned profession.

The lessening of creative endeavor on the part of the teacher which results from the increased reliance on the specific how-to-do instructions results in another limiting effect. Teachers use teaching time for the commercially prepared work and give less time to story hours and discussions. Young children, therefore, are spending more time on the controlled answer type of response, both written and oral. According to Hebb's (*3*) theory on brain function, children with limited experience in thinking out their answers are not given an opportunity to develop important stages in thinking. Experimenters working with 5's, 6's and 7's note the tendency some young children have to fish for the *right* or *expected* answer, to focus on meeting the adult's direction rather than on meanings. Methods that produce this behavior are a form of brainwashing. Furthermore, such intellectual impoverishment or impairment can be lasting. This point is of strategic importance. All who are interested in formulating and/or using materials and methods for beginning reading should feel obligated to know the effects they produce on the developing creative power of children.

One more question concerning the effect of current materials and methods on recognition of individual differences concerns us. In many classrooms across the country, young children are not only becoming skillful, independent readers, but they are often propelling themselves in selecting and reading library books independently or with some teacher help. In these classrooms such reading is a scheduled part of the program. In visiting classrooms recently I have found an increase in time required for newly selected teaching materials, over what was formerly spent on basic materials. Therefore, time for personally selected reading was limited or completely deleted. Children from culturally minimal areas are particularly deprived by this change.

Let's face it, in many classrooms the amount of time spent on teaching new or former materials allowed little or no time to pursue personal reading. In the Hofstra University (*4*) i.t.a. project, the average time per day in first grade with i.t.a. was 153 minutes in fall, 143 minutes in spring and with T.O. 167 minutes in fall and 154 in spring. In either case, over two hours of each day were required.

Considerations such as these reveal the importance I attach to the research in young children's progress in learning to read from a broader approach, one demanding at least the knowledge of specialists from the field of child development combined with specialists from the field of reading.

Some new approaches have caused an upgrading of children's interest and progress in learning to read. The teacher's enthusiasm already mentioned doubtless has been partly responsible. This is good. Would that all children were taught by enthusiastic teachers! There are other gains.

Some of the newer systems stimulate wider "sensory operations." Children manipulate, match, write, as well as look and listen. This is in line with points made at the important conference at Harvard University (7) on sensory deprivation.

Along with these gains has come an increased awareness of which children are responding favorably, which are not. The differences noticed may ultimately generate wider exploration of individual differences and methods providing for them. For example, some experimental teachers now observe marked differences in the sensory approach to new experiences. From such observations a variety of materials and methods, some recently produced, some to be created, may be called upon.

A contribution of great promise has been made by the selection of topics and vocabularies more appealing to young children than many of the former materials. Words closely related to children's speaking vocabularies are used. This recent development will benefit all children, but particularly those who had difficulty in latching on to words scant in personal reference and undramatic in sensory appeal, a point reinforced by studies made by H. B. Anderson (*2*) and C. E. Osgood (*6*).

Last, the present tremendous excitement in the field of beginning reading can create a decided up-swing in young children's reading growth as well as in teachers' competence. However, to realize such promise, a far greater disciplined approach to research, advertisement and classroom experimentation is necessary, not only to assure us of progress but also to prevent us from scuttling the gains already made in recognizing individual differences and providing for children's creative uniqueness.

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3. Reading in the Content Fields

THE TYPES OF READING or specific skills needed for learning in the content fields are often classified, categorized, or arranged differently by different authorities, but this does not mean that great controversy exists. Spache writes:

> There is widespread agreement among leading reading authorities concerning major types of reading in curricular fields and their respective purposes. A study of their recent writing points up these types of reading: (1) understanding and interpreting content; (2) grasping the organization of the content; (3) developing special vocabularies, concepts, and symbols; (4) evaluating critically what is read; (5) collecting and collating materials; (6) recalling and applying what is read; (7) broadening interests, tastes, and experiences (*14*:158).

He adds,

> Intelligence, type of previous schooling, general reading ability, and to a lesser degree, socio-economic background are some of the factors which determine readiness for a variety of reading activities. . . . Most significant is the early training in diversified reading skills in preparing pupils to read and study effectively in the content fields (*14*:159).

Artley summarized the research and literature in the area of critical reading in the content fields and states,

> . . . that a high level of critical reading as it relates to the content fields is an active process of reflecting with care on the ideas expressed, of making a rigidly exacting analysis and as a result, arriving at a valid conclusion. It is a process of judging with severity (1:122).

In answer to his question "Can critical reading be developed in and through the content areas?" he replies,

> It presumably can, if each teacher takes into consideration the factors that predispose the reader to do a high level of critical reading, if she

understands the skills, abilities, and understandings that are involved, and if she sets about through a systematic and sequential program to develop them (1:123).

Maney's study concerning literal and critical reading in science is an investigation of the relationships between selected factors in reading comprehension. She tested 513 fifth grade children. Her conclusions were:

1] Critical reading comprehension in science is a complex of skills or abilities, each of which is relatively independent of the ability to read literally.
2] Proficiency in critical reading of science materials cannot be predicted from scores obtained (a) on literal reading in science, (b) on group tests of verbal intelligence, or (c) "general" reading tests.
3] Proficiency in literal reading interpretation of science materials may be predicted with a fair degree of accuracy from scores on group tests of verbal intelligence and "general" reading tests.
4] Group tests of verbal intelligence and "general" reading tests tend to measure many common abilities (*9*:62).

Socher reported a study which also involved 513 fifth grade subjects. This investigation concerned literal and critical reading in the social studies. The general conclusions were:

1] Reading comprehension in social studies appears to be a composite of many skills and abilities which apparently function at various levels of mental activity.
2] Literal and critical reading comprehension in social studies appear to be relatively independent abilities when intelligence is held constant.
3] Individual critical reading comprehension skills appear to be relatively independent of the ability to comprehend literally in social studies.
4] When intelligence is held constant, critical reading comprehension appears to be virtually independent of "general" reading ability; literal reading comprehension, relatively independent of "general" reading ability.
5] Group tests of "general" reading ability and group tests of verbal intelligence tend to measure common factors (*15*:53-54).

Humphrey and Moore appraised,

> . . . the potential contribution of physical education to the intellectual growth and development of children; specifically to observe the reactions of primary-age-level children when independent reading material involves an aspect of the curriculum area of physical education (*6*:561).

> The procedures involved allowing 503 children to read from one to three stories for a total of 1,007 different readings. In these stories written about ten active games, special care was given to the reading values and to the literary merits of each story. Attention was focused on particular reading skills and concept development. The conclusion was
>
> ". . . that these active game stories gave the children opportunities to practice and maintain skills necessary for intelligent reading" (*6*:561).

Several studies are reported which involve reading and arithmetic. In early study Lessinger investigated the effect of reading on arithmetic achievement in grades three through eight. The conclusions included the following:

> Arithmetical computation, although seemingly further divorced from reading than from the solution of verbal problems, does involve certain specific skills in the field of reading (*8*:287).
>
> The errors due to faulty reading virtually disappeared as a result of training in reading without any specific reference to arithmetic. The actual skills emphasized during the period of this study included the ability to focus attention upon key words and on technical signs, the ability to focus combinations in the one eye-pause, to read unimportant parts hurriedly, etc. (*8*:289).

Reading was a factor studied by Hansen to determine whether certain abilities are associated with superior achievement in solving verbal arithmetic problems. General vocabulary at the 5 per cent level, and general language ability, speed reading to predict outcomes, and reading graphs, charts, and tables were found to be significant at the 1 per cent level. Comprehension—reading to predict outcomes, speed reading to note details and comprehension—and reading to note details were not significant (*5*:111-118).

The purpose of Balow's study was

> to determine if the level of general reading ability is significantly associated with problem solving ability, if the level of computation skill is significantly associated with problem solving ability, and if a high level of ability in one of the areas will compensate for a low level of ability in the other (*2*:18).

The subjects were 1,400 sixth grade students who were given reading, arithmetic, and IQ tests, and then classified according to reading level and computation level. The conclusions included:

1] General reading ability does not have an effect on problem solving ability. The findings of this study may differ from previous studies because the total range of reading ability was used rather than two groups defined as good and poor readers. Also, the effect of intelligence was controlled (2:21).

2] The lack of a significant interaction suggests that for a given level of computation ability, problem solving increases as reading ability increases, and that for a given level of reading ability, problem solving increases as computation ability increases (2:22).

3] The findings of this study point out the importance of considering children's reading ability as well as computation ability when teaching problem solving skills (2:22).

Fay investigated the relationship between specific reading skills and selected areas of achievement. The subjects were 384 sixth grade pupils. One test of mental ability (Binet), three tests of reading ability, and one test of achievement in arithmetic, social studies and science achievement were used. The following reading skills were selected for study: 1] reading to predict the outcome of events; 2] reading to understand precise directions; 3] general reading comprehension; 4] reading of maps, graphs, charts, and tables; and 5] use of index, reference, and dictionary. The findings were summarized as follows:

1] Superior readers were found to achieve no better in arithmetic than did inferior readers when chronological and mental ages were controlled. This was true for all reading skills tested.

2] When the effects of chronological and mental ages were controlled, superior readers in predicting the outcomes of given events, understanding precise directions, general comprehension, and the reading of maps, graphs, charts, and tables were found to achieve better in social studies, at the 1 per cent level of significance than did readers who were inferior in these abilities.

3] When the effects of chronological and mental ages were controlled, superior readers in using references, an index, and a dictionary were found to achieve no better in social studies than did readers inferior in these abilities.

4] When the effects of chronological and mental ages were controlled, superior readers in understanding precise directions and in general comprehension were found to achieve better in science, at the 5 per cent level of significance, than did readers who were inferior in these abilities.

5] When the effects of chronological and mental ages were controlled, superior readers in predicting the outcome of given events, the reading of maps, graphs and charts, tables, and in the use of references, an index, and a dictionary were found to achieve no better in science than did readers who were inferior in these abilities (4:544-545).

> 6] The reading skills studied in this investigation are obviously more related to the reading demands of social studies than to those of science and arithmetic. It may be hypothesized that reading skills more directly related to the demands of science and arithmetic would prove significant to achievement to those areas (*4*:546).

Maw and Maw investigated children's curiosity as an aspect of comprehension. The subjects were sixth grade pupils who were ranked as to "degree" of their curiosity by teacher, peers, and self.

> According to the definition of curiosity used in this study, a person high in curiosity scans his environment more thoroughly than does a person of low curiosity, and as a result notices more. The high curiosity person also wants to understand and to know more about what he sees. It therefore seems probable that in reading the high curiosity person will be more alert and will be more actively seeking understanding (*10*:236).
>
> The findings of the study support the hypothesis that children with high curiosity tend to sense the meaning of sentences more accurately than do low curiosity children of equal tested intelligence. The present investigation indicates that the advantage held by high curiosity children is less at the upper I.Q. levels (*10*:239).

McCullough investigated the responses of elementary school children to common types of reading comprehension questions.

> For the purpose of this study a number of first, second, and fourth grade children in a city in Ohio were given, respectively, the Pre-Reading Tests, the Second Grade Readiness Tests, and the Fourth Grade Readiness Tests of the Ginn Basic Reading Tests. The children's responses on the comprehension sections of these tests were analyzed (*11*:65).

McCullough concludes,

> These data indicate that children at all levels examined in this particular city (first grade, second grade, and fourth grade—285 in all) are able to think about story material in the four ways examined: main idea, details, sequence, and creative reading (seeing relationships, drawing conclusions, passing judgments, and the like). Further, they show that a positive and perhaps substantial relationship among these comprehension types, suggesting the possibility of a common factor pervading all. They do not, however, justify the idea of testing children by one type in order to discover their ability in all types, for individual predictions are impossible on the basis of a score on any one type of comprehension. A teacher would have no assurance from a child's success on a test of fact-getting, that he was good at getting main ideas, or sequence, or drawing conclusions in material

> of similar difficulty. Nor would the teacher know what to emphasize in his subsequent teaching to equalize the child's strength in these different skills (*11*:69).

Schneyer investigated the use of the cloze procedure for improving reading comprehension.

> The term "cloze" is derived from the Gestalt concept of "closure," the tendency to complete a structured whole by filling in a gap. A cloze test or practice exercise is constructed, by deleting certain words in some regular manner from a verbal passage and substituting underlined blank spaces. The individual responding to the cloze test or exercise is asked to fill in the word which belongs in each blank space. The comprehension score on the cloze test or exercises consists of the number of correctly filled spaces (*12*:174).
>
> The major hypothesis of this investigation was concerned with whether pupils who completed a series of cloze exercises would achieve significantly greater improvement in reading comprehension, as measured by standardized tests, than pupils who had not completed such exercises.
>
> The differences between initial and final mean scores indicate that both groups increased in vocabulary and reading comprehension and decreased in speed. . . . The difference between the means of the two groups was not significant, and therefore the pupils who had completed the cloze exercises did not show significantly greater improvement in reading comprehension (*12*:176).
>
> The relationship between adequate achievement in word recognition ability and significant performance on the cloze exercises suggests that pupils with word recognition deficiencies are likely to find cloze exercises too difficult, just as pupils are likely to have trouble with conventional reading materials (*12*:179).

In addition to research studies, analysis of children's texts in the content fields and summarizing and categorizing various skills are quite common in the literature which gives attention to comprehension in general reading and in reading in the content fields.

In separate articles and in articles dealing with research, suggestions for teaching are often given along with suggestions for further research. As an example, McCullough writes,

> These data should lead to further research. It would appear that teachers can actually inhibit thought processes by their approach to reading (*11*:69).

Johnson summarized and analyzed the factors in reading comprehension. In the section, "Implications for Teachers," she states,

> Probably the outstanding lesson the teacher should learn from this discussion is that reading comprehension is not a unitary ability. There is no magic method by which a function called comprehension can be improved in its entirety. Since there are many factors involved in reading comprehension, improvement would depend upon development of its components (7:400).

She adds,

> A final point to be stressed is this: each teacher should be a teacher of reading. In every subject-matter field there are certain concepts to be developed which are peculiar to that field (7:402).

Serra has reviewed and reported the literature concerned with developing concepts and their verbal representations. She states,

> The attempts to define the word "concept" have been many, but as yet there has been little agreement on an adequate definition. For empirical purposes, however, Dewey's definition is commonly accepted: "concept" is defined as "meaning sufficiently individualized to be directly grasped and readily used, and thus fixed by a word."
>
> Concepts exist at all levels of complexity. A concept can be based on one experience with an object or upon a multitude of experiences, and it will increase in complexity with the amount of experience. It can be based on varying degrees of relationships among objects. Concepts of increasing levels of complexity are based on a hierarchy of concepts dealing with objects and their relationships. Concepts are also symbolized and verbalized by the individual, and the symbols or words in themselves become new concepts with a new hierarchy.
>
> Verbalization, however, is not essential to indicate the existence of a concept. Behavior may demonstrate the acquisition of a concept (*13*:275).

Reading with meaning requires dealing with concepts that have been verbalized. The reader and the writer must have the same concept if the meaning is to be understood. This problem in reading is associated with development of meaningful concepts before reading, the development of meaning vocabulary, and awareness of the multiple meanings of words. Then the reader's task is often one of selecting the appropriate meaning or concept for that symbol or word. One means of developing concepts is through the development of vocabularies. In the subject matter or content fields it is essential that specialized vocabulary of that field be taught, and that appropriate concepts be developed.

Serra suggests:

A review of research indicates that concepts are better developed when these conditions are presnt.

1] Provision is made for a wide range of experiences, vicarious as well as direct.
2] Careful instruction in word study should be provided to extend vocabularies and knowledge of word meanings. In this instruction, high level concepts should be related to those at lower levels and careful differentiation must be made between mere verbalism and established concepts.
3] The multiple meanings of words provide a means of developing concepts based on vicarious experiences received through language. It must be recognized, however, that high frequency words are not readily understood, although many of the most frequently used words are multi-meaning in value (*13*:283-284).

Durrell and Palos describe an organizational pattern using pupil teams or small groups in reading. They state,

> Team study seems to offer many advantages to learning, especially in view of the wide differences in ability among pupils in any classroom. It permits adjustments to team differences in level and learning rates; rapid learners may advance faster or use more difficult material; slow learners may use easier material or more detailed study guides and progress at a suitable pace. It should give the opportunity for specific practice to overcome weaknesses common to the team (*3*:552).

They add:

> Graded study guides for pupils studying the same lesson help to improve comprehension and recall (*3*:554).
>
> Groups of five pupils seem to work well when elaborate thinking or planning is required. After reading a geography selection on Italy, the group may be asked to list additional information they have: people who have come to this country from Italy who are prominent in baseball, movies, television, politics, or local people who have Italian backgrounds; things we use which could be included in an exhibit or an assembly program; questions which might be asked or information which might be included in a letter written to children in Italy. Every pupil seems to participate when groups are limited to five, but individual participation is diminished when groups become as large as seven. Pairs and groups of threes run out of ideas more rapidly and are less secure than groups of five. In elaborative thinking assignment pupils may be grouped without regard to reading achievement (*3*:555).

This description suggests that organizational patterns for learning-teaching as well as providing various and/or specific purposes and techniques for use in the classroom can result in more pupil interest and achievement.

The classroom teacher should find many implications for improved instruction through reflecting upon the research in the field. Suggested areas for thought would include:

1] How does the regular reading instructional program contribute to learning highly specific skills in reading?
2] How may the plans for instructional periods in reading be closely identified with the needs of pupils in reading in the content fields?
3] Where is the best place to find useful and meaningful practice in reading skills?
4] Are certain skills more easily practiced in particular content fields?
5] How are the backgrounds of information, concepts, and vocabulary study related?
6] How can the classroom teacher keep adequate records concerning specific skills taught and practiced?
7] How can the classroom teacher identify specific reading needs of pupils when they read materials in the content fields?

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4. Culturally Deprived Children and Reading Achievement

STUDIES ON THE effects of social and cultural factors on reading achievement have shown that the culturally disadvantaged are different from other strands of the population in many of the aspects of language development related to success in reading. Educators have begun an attack on this problem with the Operation Head Start programs under way throughout the United States.

A study reported by Barton (*1*:167-74) showed that, in classrooms where children came from working-class families, reading grade levels were generally below actual grade levels in an increasingly greater percentage throughout the first six grades. Among children from the lower-skilled, lower-paid part of the working class, the difference was even greater. Mean percentages of classes reading one or more years *below* actual grade level were:

upper class	3 percent
middle class	6 percent
upper working class	10 percent
lower working class	33 percent

This investigator also reported the reading advancement of the large school population sampled (1200 teachers provided survey data). Mean percentages of classes reading one or more years *above* actual level from Grade 1 on were:

upper class	66 percent
middle class	41 percent
upper working class	27 percent
lower working class	10 percent

Barton concluded, "the most important single factor in progress in reading in school is socio-economic class" (*1*:74).

Cooper (*3*:462-471), studying the reading achievement of white and Negro pupils in Georgia, examined reading grade placement scores of the vocabulary and comprehension sections of the California Reading Test for more than 30,000 pupils in grades 4 through 12 during the school year 1958-59. She, like Barton, observed a decrease in rate of growth in both vocabulary and comprehension; this was more marked for Negro than for white subjects, particularly at upper grade levels.

Deutsch (*4*:78-88), on the basis of findings from an extensive series of studies of social class and race, has developed what he calls a "cumulative deficit hypothesis." He suggests that the lack of appropriate language stimulation early in life, both at school and at home, may make success in reading, as well as in other school activities, progressively more difficult, since the child becomes less and less responsive to remediation as he grows older.

This study was based on a population of 292 Negro and white children of various racial and social-class groups who were tested in grades 1 and 5. These subjects were part of a population of about 2,500 children involved in a four-year study called the Verbal Survey. Correlations were reported for 34 variables for a population of 127 first-grade children and 165 fifth-grade children. Among the findings related to the area of reading are:

1] All measures of intelligence, including the WISC vocabulary score, were significantly related to SES (Socio-economic status) only in first grade, but to both race and SES in fifth grade.

2] Scores on the Gates Reading Test, which was given only in fifth grade, were significantly correlated with SES only.

3] Peabody Picture Vocabulary Test scores (given only in Grade 1) were significantly correlated with SES only.

4] On the Cloze Test the correct context score was significantly correlated only with SES at first and fifth grades.

5] The Wepman Test of Auditory Discrimination was correlated significantly with both race and SES in first grade.

Deutsch suggests ways in which his findings have implications for the schools:

> Essentially, it would appear that when one adds four years of a school experience to a poor environment, plus minority group status, what emerge are children who are apparently less capable of handling standard intellectual and linguistic tasks. One might also postulate that when a Negro

child broadens his environmental contacts by going to school (and to and from school) he is made more aware of his inferior caste status, and this has the same depressing effect on his performance that his inferior class status had all along. The data indicate that being lower class, Negro or white, makes for lower language scores. Being Negro makes for lower scores. But being both lower class and Negro does not disproportionately make for lower language scores.

Harris *et al.* (*6*:243-268), commenting on the implications of this study for the teaching of reading, point out:

> Deutsch appears to be arguing that for the disadvantaged children with respect to lower social status and possibly race, the all too usual minor adjustments made by schools to readiness for reading are completely unrealistic. He appears to be arguing that such children must experience massive saturation in language experience both before school and during school years, especially the early ones. He appears to be arguing that major modifications in school curricula and school learning strategies are necessary. This article, and others by the author and his co-workers, would appear to plead for a more aggressive and dynamic implementation of the concept of "readiness" for such children (*6*:245).

Loban's study (*7*) showed that subjects who were low in general language ability were also low in reading ability. The gap between the high and low groups appeared to widen from year to year. Most subjects in the low group were reading significantly below their chronological age in each of the years studied. Loban found writing ability related to socioeconomic position; those in the four lowest socioeconomic categories rated below average in writing. The subjects in the lowest and highest quartiles in writing were also lower and higher in reading achievement.

A recent progress report of the CRAFT project (*5*) describes a study of the methods of teaching reading in three racially segregated areas in New York City. The authors describe the methods chosen for study:

> The central comparison in this study of first-grade reading methods is between the Skills-Centered Approach and the Language-Experience Approach. The Skills-Centered Approach emphasizes the need for order, structure, and built-in repetition. Skills are introduced in specific sequence, the vocabulary is carefully controlled, and the teacher is provided with detailed lesson plans. The Language-Experience Approach emphasizes the need for self-expression through the use of the child's oral language as a basis for beginning reading materials. His experiences provide a basis for concept-building, language enrichment and vocabulary development. Out of the discussion of these experiences, chart stories are developed and used

> for reading and writing, for skills instruction, and for drill. The transition to book reading is gradual and individualized.
>
> Each of these two main approaches was further divided into two teaching methods, or variables. The Skills-Centered Approach was subdivided into Variable I, Basal Reader Method, and Variable II, Basal Reader Method with Phonovisual Word Recognition. The Language-Experience Approach was subdivided into Variable III, Language-Experience with customary use of audio-visual aids, and Variable IV, Language-Experience with Audio-Visual Supplementation. In the research design, these four methods were treated as four separate experimental variables (*5*:2-3).

There were 12 classes using each of the four teaching methods. A teacher-training program was set up for the project by an in-service training workshop; by training within schools by consultants; by training *via* the assistant director of CRAFT; and by coordination through consultants and school administration. The twelve elementary schools selected for the study were characterized by 1] having a very high percentage of Negro children, 2] having a minimum of six first grade classes, and 3] showing evidence of cultural deprivation and marked retardation in previous surveys of reading ability. At the conclusion of the first-grade testing, 1,146 of the original 1,378 children remained in the 48 classes. The study began in Fall, 1964. It is now ending in the second grade and it will be continued in the third grade. There were 38 second-year CRAFT classes, divided almost evenly among the four teaching methods. Eleven of the original twelve schools participated in the second year program. In Grade 3 no attempt will be made to keep classes together or to control teaching procedures. The majority of the children will have moved to different schools. Procedures have been set up for tracing them to obtain their scores on the city-wide reading tests. The final report is planned for January, 1968.

A replication of the first-grade study was conducted this year with 26 teachers using the same methods they used last year, each with a new class of children.

Among the tentative conclusions drawn by the authors at this point in the CRAFT research are these:

1] The results as a whole show that disadvantaged first-grade Negro children can make substantial progress in learning how to read. As a group, pupils had done quite poorly on the reading readiness tests. Their achievement was well ahead of expectations based on their pretest scores.

2] Disadvantaged urban Negro children can learn to read by the same methods that work with middle-class white children. They begin with extremely poor auditory perception skills, limited vocabularies, and other readiness handicaps, but they can respond to superior teaching with good learning. When books and stories are within their comprehension, they respond well to many of the same books that are favorites with middle-class children. Their new, integrated favorites with multi-ethnic characters are probably gaining popularity among middle-class children also.

3] The Basal Reader Method, employed as in the CRAFT Project, held a slight lead among the four methods at the first-grade measuring point. It achieved slightly but significantly highest results in meaningful silent reading comprehension.

4] The Phonovisual Method, although liked by its teachers, did not demonstrate any superiority. It was inferior to the Basal Reader Method in paragraph meaning, and its slightly higher scores on word recognition tests were not statistically significant. It was the lowest of the four methods on the *San Diego Inventory of Reading Attitudes.* Chall (2), surveying research on first-grade reading instruction, concluded that systematic phonics instruction has a delayed effect with disadvantaged children; that it does not do well in the first grade, but shows to advantage by the end of the second grade. The investigators in the CRAFT project comment that it is therefore possible that the Phonovisual method will demonstrate accelerated gains in the next progress report.

5] The Language-Experience Approach with Audio-Visual supplementation obtained significantly higher scores on several tests than did the Language-Experience Method without audio-visual supplementation.

6] In schools in which CRAFT classes were on split-session schedules, achievement in both approaches was considerably lower than in the full-session schools.

Implications for Classroom Practice

The studies discussed here appear to be useful in suggesting the elements necessary in a curriculum that takes into consideration the needs of the culturally disadvantaged. For this child the school's reading program should:

1] Provide "massive saturation" in language experiences at *all* grade levels.

2] Provide numerous opportunities for the consistent enrichment and reinforcement of vocabulary.

3] Begin the verbal enrichment process at the earliest age the child (and his parents) can be reached.

4] Check carefully on, and provide adequate instruction in, auditory discrimination.
5] Provide books and stories that are within his comprehension.
6] Emphasize comprehension skills.
7] Provide a reading program that has order, sequence, structure, and repetition.
8] Consistently provide remedial help throughout the child's school career as long as he needs it. However, the earlier such assistance is available, the fewer reading failures the child is likely to encounter.
9] Avoid placing him in a split-session school.

As one examines these implications for classroom practice, he is made aware that these are among the characteristics of *any* good reading program for *any* child.

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COMBINING RESEARCH RESULTS AND GOOD PRACTICE

SECONDARY LEVEL

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1. Promoting a Love Affair with Books

CAN WE BE SURE that the friendship we are promoting between pupils and reading will develop into a "grand passion" or, at least, into a warm and lasting relationship? Probably not. But we can increase the likelihood of its happening if we are guided by 1] the advice of psychologists; 2] the results of research (formal and hard-nosed, or informal and empirical); and 3] the behavioral changes in pupils themselves.

What Are These Independent Personal Satisfactions? From What Do They Stem? How Can Teachers Foster Them?

These questions interlock and it is far easier to raise questions than to answer them. Do you remember Einobarbus' description of Cleopatra? "Age cannot wither her nor custom stale her infinite variety." Here, too, we have infinite variety, for a person's satisfactions in reading are as different as the persons are diverse. A pupil's values are deeply personal and built around his own self-image. But they spring from common basic sources within the personality structure. Ketchum (7:380-86) identifies five of these sources in "The Emotional Impact of Reading Success and Failure."

1] The need to be loved, to have approval and affection. This is the primary receptive emotional need.
2] The need to love others. Here we have the outgoing emotional force of aggression, the drive which impels us to action.
3] The ego, the strong drive for sense of self. This is the very core of human individuality. Helping the ego to adjust to environmental demands and pressures involves the ethical and moral censors.
4] The acquisitive impulse. This activates the drive for ownership or possession, for goal-seeking or achieving.
5] The drive toward finding pleasure, joy, or satisfaction. Here is stimulus for positive action.

The learning process involves all five of these forces and the *good* learning situation requires them in balance to defend the individual against stress, or tension, and the consequent reactions harmful to success in learning.

By What General Means Does the Teacher Promote Success in Reading?

Using knowledge of these basic aspects of personality structure, the effective teacher nurtures and promotes success in reading by six related means:

1] Differentiated teaching methods (to which we give frequent, easy lip service and infrequent demonstrations).
2] Materials of many kinds and many levels of difficulty to provide, by anticipation and avoidance of repetitive frustration, for broad and rich reading experiences.
3] Encouragement and genuine approval.
4] Varied means of stimulation and motivation.
5] Sequential structured teaching to develop disciplined power and independence.
6] Abundant opportunities for pupil's own choices and by promoting the building of personal libraries geared to the pupil's powers and interests.

What Are the Sources of Satisfactions in Reading?

Pleasure in reading comes from using our reading power to satisfy a variety of purposes, and it comes from reading both imaginative and factual materials. For example, we read with deep satisfaction the road sign that says, "Only ten miles to . . ." wherever it is we are going. We get pleasure from a vivid account of the foreign country that we are going to visit, actually or vicariously. We get a different kind of satisfaction if our purpose is to understand the important steps in a "how-to-do-it" sequence or if our purpose is to grasp the clarification of the complex process of the making of a president in White's excellent book of that name. Such satisfactions are vital and ongoing. Like love, they grow by what they feed upon.

But the reading which stretches our mental muscles, which enriches our personal lives, which enlarges our perspective on ourselves and on the world—this reading is likely to be imaginative or literary: fiction, drama, poetry. Not every pupil will enter fully into this world of the imagination, but each can surely be led, or enticed, to move in that direction. Many elements enter into the choices pupils make that gradually lead them up the ladder of discernment and impel them to select more judiciously one book instead of another.

What Experiences Develop Attitudes Leading to a Love of Reading?

The first requirement for the development of good attitudes toward reading is obviously growth in reading power. But research studies reveal a disappointing lack of emphasis on building the very skills on which critical judgment is posited. The preliminary analysis of the findings of the 1965 NCTE study of the English and reading programs of 168 high schools (*11*:468-472) reveals that:

> Careful distinction between the teaching of literature *per se* and the teaching of students to *read* literature were not found to be characteristic of many classrooms.
>
> A lack of attention to the skills of reading, even the skills of reading literature, seems apparent. Departmental chairmen claim that only 3 to 4 per cent of instructional time in Grade 10 devoted to reading, declining to 2 percent in Grade 12. . . . Reading received attention in only 10 percent of the classrooms.
>
> . . . High school English programs devote overwhelming attention to the study of literature, rather than to the skills involved in reading such literature. The student is apparently expected to become an "active and critical reader" simply from extensive reading.
>
> . . . Perhaps the problem is to help teachers see that in high schools the critical study of literature involves the teaching of reading!

What Are the Clusters of Abilities Involved in Reading Literature?

Burton (*3*:87-99) suggests a four-layer description of the structure of literature:

Layer 1: Themes which develop from four basic relationships: Man and deity; man and other men; man and nature; man and himself.

Layer 2: Modes, of which there are four basic ones, according to Frye—romantic, comic, tragic, and ironic. Romantic and comic modes, Frye maintains, are the easier; tragic and ironic the more difficult.

Layer 3: Genres, of which the modern imaginative ones are novel, short story, poem and play.

Layer 4: The individual selection.

Learning to read literature implies an awareness of these layers of structure. All teaching of the skills of reading literature takes place in this general context.

If the major purpose of teaching students to read literature is to enable them to gain "felt" knowledge—and I think it is—and, if the training which leads to this ability involves enjoyment—and I think it does—then the relationship of enjoyment or appreciation, on the one hand, and study or analysis, on the other, becomes a dilemma of the chicken-or-egg variety.

This brings us, then, to the actual hierarchy of skills with which we will be concerned in teaching students to read literature. It seems to me that three sets of abilities comprise this hierarchy:

1] Abilities needed for imaginative entry into a work of literature.
2] Abilities needed for perception of meaning or central purpose.
3] Abilities for perception of artistic unity and significance.

All of these three sets of abilities involve both intellectual and emotional reactions on the part of the reader of literature.

What Materials Should Pupils Read?

But growing powers are not enough. A second requirement for the development of good attitudes toward reading is an abundance of available and varied materials to meet and extend interests. What do pupils in junior and senior high school like to read? In 1957, Arno Jewett's (*6*:26-33) analysis of over 200 studies of reading interests revealed that the findings were in general agreement. In 1965 the findings of the NCTE study of English programs previously cited reaffirmed what the earlier studies had revealed: that pupils prefer fiction to non-fiction, and that they like detective mystery stories, adventure and war stories, and stories of romance. The NCTE study (*11*) included magazines and revealed significant absences from school libraries of the titles rated high by pupils. It also reveals a similar disparity in books and raises a pertinent question:

> . . . The one magazine in almost all of the libraries, *The Saturday Review*, is ranked 25th in popularity by the adolescents. *Post, Life, Atlantic,* and *Harper's* are available in equal numbers; the first two high on student reading lists, the others missing the top 29 favorites. *Seventeen* is ranked 5th by students, but 25 percent of the libraries do not have it; *Look*, rated 4th, is absent from as many. *Hot Rod, Sports,* and *Ingenue,* rated 11th, 12th, and 13th are present in only 42 percent, 23 percent, and 11 percent of the libraries. No one will argue that such absences prevent students from important literary reading experiences, but the absence may contribute to the lack of interest of students in any library reading experiences at all. . . . The great majority of English teachers prefer to have their students

seek books to read from the school library (65.8 percent) rather than from the public library (12.5 percent) or elsewhere. Why? Because it is safer? The findings emerging from this study seem to suggest a dual book culture for the reading of young people—the acceptable, safe books read in the school library, and the preferred titles (sometimes of high literary quality) which can be found in the public library and read on one's own at home. Perhaps this is as it should be. But one wonders how students will acquire the needed help and guidance necessary to read Faulkner and Joyce and other major modern writers. We talk much about using our programs in literature to pass along to young people our common cultural heritage. Yet part of the intellectual heritage of America today is the vigorous realistic tradition of Twentieth Century writers. Should not we find better ways of coping with this tradition in our schools?

Materials to do such teaching and to meet and extend interests are not only physically abundant but financially available. The paperback tornado is blowing some good things our way. In his discussion of paperbacks, Sohn (*13*:163) says:

> To hear that paperback books are being sold to the public at the rate of over a million per working day should be music to the reading teacher's ears. An illiterate nation does not buy books at that rate. Somebody must be reading them. The question arises, however, as to why paperbacks appeal to adults and students alike?
>
> . . . The hardcover is to the student a durable, heavy, old-fashioned medium. The paperback is light, up-to-date, appealing. *Hardcover* is texty, drab, adult, bulky, slow-moving, permanent. *Paperback* is young, colorful, shorter, spirited, temporary. It makes little difference that *Robinson Crusoe* appears in both forms with the identical words in each version. The paperback has a more modern message. This phenomenon shakes our prejudice and jostles our traditional thinking.

We may well be beginning to win our battle with lack of quantity in reading, and we are now in an advantageous position for making wide choices for supplementing the textbooks, and for selecting for close teaching those appropriate books which also elicit our own enthusiasm and generate contagious interest. In addition, we can encourage the pupil to purchase his own copies and build his own library, and we can now easily establish our own classroom libraries.

Sohn quotes Vice-President Humphrey's (*13*) suggestion that every boy and girl in America should have his own small library, developing the idea that we should encourage "a love of books amongst our young people as great as the love of an automobile."

What Do Young People Enjoy Reading?

Pertinent here is a study by Bloomer (*1*) of the younger children's free withdrawals of books. He found that the children's choice of an identification figure (heroes or villains) tends to indicate the direction and force of a child's need and can serve as one guide or selection device for reading materials. Children tend to choose books with a relatively high degree of conflict, yet education materials tend to err on the side of too little conflict.

What is the evidence that we are succeeding in fostering higher levels of satisfaction in reading? Hard-nosed research in this area is regrettably scant. Smith (*10*:3-7) says in her introduction to the NCRE research pamphlet that the topic of developing taste in literature has all but vanished from research consideration.

However, some early studies, such as La Brant's (*8*:213-217), resulted in constructive and still valid conclusions—that the problem of teaching pupils to read good magazines lies in making them available in quantity, in providing situations where they can be read profitably, and in allowing leisure for their use.

A study by Squire (*12*) dealt with the characteristics of adolescents who respond positively to imaginative literature. He identifies five characteristics:

1] These youngsters react with genuineness; they do not substitute the standards or judgments of others (the teacher, critic, or other students) for their own.
2] They suspend judgment until they have tested tentative interpretations.
3] They are willing to search for meanings.
4] They weigh evidence, judge details objectively, and maintain esthetic distance.
5] They fuse emotional and intellectual responses; *i.e.,* they are able to respond emotionally at the same time that they are concerned with the way in which literary artists achieve their effects.

In this study lie clear implications for the need of inductive teaching—for the shift of emphasis from classroom procedures based on the teacher's telling to those which promote the pupil's discovering.

Many implications for the classroom teacher are supported by these research studies. One valuable suggestion for selection and approach is made by Carlsen (*4*:7-12), who says in part,

> Out of thirty years of investigation of adolescent reading interests, we have arrived with some surety at the kinds of books that young people like. Amazingly these interests have not changed substantially in the thirty years, nor do they change from one geographic area of the country or of the world to another. From some evidence presented by Norvell, even the teaching quality seems not to affect materially the interests of young people, children under a good teacher liking and disliking much the same things as do those who are under a weak teacher.
>
> Reading interests have almost always been classified in terms of something found in the book such as mystery, adventure, family life, animals. In general, investigators have asked, "What is there in young people that makes them choose certain kinds of content at this period of their lives?" To answer such a question, it is helpful to line up the findings of reading interest studies with the findings of adolescent psychology, particularly those dealing with problems and needs of young people. Out of such a pairing, three broad areas of need appear that seem to account for many of the choices students make.

Young people need assurance of their status as human beings. A second area of need in the developing adolescent is the assurance of his own normality. A third need is that for role playing. Consequently, Carlsen suggests experimenting with an approach to literature which takes its direction from pupil needs, which is based on selected materials which have high relevance for students, and which bears for them deeper and greater personal significance.

Broening (2:48) summarizes implications of her research in her review of studies on the development of taste in literature in the senior high school, as follows:

> Literary taste can be developed and is influenced by home, school, and community stimulation to reading. Growth in literary taste is related to the emotional and intellectual status of the individual. There is a relationship between the development of literary taste and:
>
> 1] direct teaching of interpretive reading skills;
> 2] the availablity of a range of literature appropiate to the reader's emotional and intellectual maturity;
> 3] teacher and librarian guidance through which the individual reader can develop criteria for choosing the right book for his purpose and mood;
> 4] satisfaction in enjoying literature as an aesthetic experience; and
> 5] motivation for reading literature as a source of relaxation, revelation, and renewal.

In summary, may I say that continuing satisfactory interaction between a pupil and books is based on: 1] developing his reading power; 2] disciplining his tastes; and 3] deepening his view of the world. We need much more research and more refined research on these vital aspects of reading. As Felix Rabb (*9*) said, "We should give at least as much support and attention to the exploration of the space lying between the ears of 75 million young Americans as we do to the exploration of *outer* space."

Dr. Ole Sand, director of the National Education Association's Center for Instruction, suggested that our debt to science, responsible for great advances in the human condition, be kept in a clear perspective: Ask today's child about the sun and he will tell you that it is 93,000,000 miles from the earth, nearly 900 thousand miles in diameter . . . with a surface rotation of about 25 days at the equator. Perhaps he must be taught all these things. Yet it will always be the larger purpose of education to show him the *radiance of a sunset.*

As we go about promoting a love affair between pupils and books we need to help them find increasing satisfactions not only in reading to discover facts about the sun but also to discover the radiance of the sunset.

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2. Organizational Patterns and Materials in Secondary Reading Programs

WHEN THE INVITATION to serve on this panel was first accepted, it was felt that examination of issues of recent years of professional journals usually found pertinent for topics related to reading should reveal a considerable number of reports of research dealing with secondary school reading programs and instructional materials used in such programs. For purposes of this paper, all the issues from January, 1960, through December, 1965, of each of following fifteen journals were examined: *National Association of Secondary School Principals Bulletin, Clearing House, Education, English Journal, High Points, High School Journal, Journal of Education, Journal of Educational Psychology, Journal of Educational Research, Journal of Reading* (formerly *Journal of Developmental Reading*), *Journal of the Reading Specialist, Peabody Journal of Education, Reading Horizons, Reading Improvement* (formerly *High School Reading*), and *Reading Teacher*. The *International Reading Association Conference Proceedings* for the years of this period, 1960 through 1965, were also examined for research reports relevant to secondary reading programs and reading materials.

A considerable number of programs was found reported, many very briefly; but quite a few of these were not reports of research. As progress was made in reviewing journal issues, it became apparent that if a thorough or rigid standard for "research" reports were held to constantly, the number of pertinent articles found would be relatively small. It was, therefore, decided to include for purposes of this paper, in addition to real or actual research reports, all articles dealing with secondary reading programs which included at least some indication or presentation of results of evaluations of such programs. With use of this rough criterion of "research reports," thirty-seven pertinent articles or reports dealing with programs finally were found.

It was anticipated that at least a few reports of research dealing exclusively or mainly with secondary reading materials would also be found. However, examination of each of the articles in each of the issues of the various sources previously identified resulted in the finding of only one actual research report dealing mainly with materials. This report was one presented by this panelist at the IRA Conference in Philadelphia two years ago (*5*:85-86). The study reported was an attempt to find out from fourteen publishers what they considered to be secondary "basal reading materials" and what "basal" materials they had available. A major conclusion reached, suffice it to say here, was that high school "basal reading series" are still very vaguely and indefinitely defined or identified. Fortunately, many of the articles concerning programs were found to have sections dealing with materials; so this information was used in the analyses involved in the preparation of this paper.

Of the thirty-seven articles relevant to programs, six were reports of surveys of programs in various regions of the country (*2; 3; 8; 13*:36-40; *29;* 31). Of the remaining thirty-one reports, slightly more than half appeared to have reporting of a particular program or programs as a major intent, rather than the reporting of research results (*1; 4; 7; 10; 11; 12; 14; 15; 16; 21; 22; 23; 25; 28; 33; 38*). Each of the rest of the articles was mainly concerned with evaluation of a specific program (*9; 17; 30; 33*) or an experimental program (*6; 19; 20; 26; 37*) or a comparison of different types of programs (*18*:102-104; *24; 34; 35; 36*).

Each of the thirty-seven reports of programs was analyzed in some detail with respect to information concerning a number of organizational aspects of secondary reading programs and instructional materials for such programs. A summary analysis for each of the indicated areas follows:

Most of the programs reported were specifically identified as being "developmental" programs. "Developmental" appeared to be applied in a broad way to a considerable variety of programs. A rough interpretation, based upon study of the various program reports, would be a program which is not mainly concerned with developing reading skills of students who are severely retarded with respect to such skills. A lesser number of specific programs was designated as being "remedial" or "corrective," while several other programs were reported as having both developmental and remedial phases or aspects. In a few instances, it was difficult to determine whether programs were developmental or remedial.

In a number of programs, the student participants did their reading work in "reading laboratories" (*e.g., 1; 4; 7; 10; 23; 25; 28; 32*). In most of these instances special reading teachers handled the reading program, although in a few cases special reading teachers worked in cooperation with the classroom teacher. At the senior high school level, a reading program was quite often part of a regular English class or English teachers were directly involved in the reading program in some way. The regular classroom teacher functioned as the reading instructor in a few of the junior high school level reading programs reported. In a number of programs, attempts were made (apparently successful ones) to teach reading skills through content subjects (*e.g., 6; 16; 19; 37; 38*).

No definite pattern as to grade levels at which programs were provided could be determined from a study of the reported programs. In the programs reported, reading classes were found to be provided at each of the various single grade levels, from seven through twelve, and at various combinations of two and three grade levels.

The length of a program, as well as frequency of meetings within a given period of time, was also found to vary considerably among the different programs. In this area, also, no clear-cut pattern could be discerned. In the various programs reported, the lengths ranged from three weeks to two years. A number of programs, especially at the senior high level, lasted from three to eight weeks. The frequencies of meetings ranged from once a week to fourteen times a week. The length of class periods also varied considerably.

Class size was also found to vary considerably, with nearly forty in a class in some instances. The class size was not given for a number of programs. Classes of 25 to 30 students were reported most frequently. Even in reported remedial programs, ten to twelve pupils per class appeared to be minimal.

Among other miscellaneous aspects revealed in the analyses was that teaching of study skills was included in a few programs (*1; 4; 17*). Summer programs were included in at least two reports (*1; 33*). In at least one reported program, students took time from their study periods for reading classes. A number of programs was definitely indicated as being voluntary in nature (*1; 7; 14; 25*). A few were identified as being compulsory (*e.g., 4; 16*). Compulsory or voluntary aspects were not indicated for a number of reported programs.

The materials used in the various programs reported were found to vary considerably. A variety of printed practice materials (workbook-type materials which may be used independently of any given basic book or in conjunction with or supplementary to a combination of other materials) was found to be used in quite a number of programs at both junior and senior high levels. A considerable number of programs also included work with various types of mechanical aids, particularly tachistoscopic and pacer-type instruments and reading films. The use of no mechanical equipment was clearly indicated for a few (reportedly successful) programs (*6; 18:*102-104; *21; 26;* 36). Basal reading series were definitely indicated as being used in only three reported programs, all at the junior high level (*16; 20; 35*). Special materials were prepared for some specific programs (*14; 17; 19; 25; 38*). Reading of recreational-reading-type books, "for fun" or for free reading, was indicated for several other programs (*27; 30; 33; 37*).

Comparisons of findings obtained in the various surveys found reported (*2; 3; 8; 13; 29; 39*) with the type of analyses being reported here reveal a number of similarities; however, a number of differences and seeming discrepancies or contradictions may also be observed. For example, DeBoer (*13*), in referring to an Illinois survey at this conference six years ago, commented favorably on high interest books as one of the chief remedial procedures employed. Such practice was indicated in only a very few of the programs analyzed for the present report. The chairman of this session, in his survey of five North Central states a few years ago, found that schools tended to rely on one text in secondary reading programs (in contrast to what the present analysis reveals) (*31*). Simmons also commented upon discrepancies between what he found actually being done in secondary reading programs and what he and others might wish were being done.

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3. Improving Textbook Interpretation

THE TEXTBOOK CONTINUES to be the most widely used instructional medium in American schools. Whether it is employed as a single class source to be intensively mastered or as one of several collateral sources to be extensively surveyed and integrated, the problems remain the same. Do students experience difficulty with textbook interpretation? What implications do the research findings hold for improving the use of the textbook as an instructional resource?

Student Difficulty with Textbook Interpretation

Thorndike's 1917 study of mistakes in paragraph reading was one of the first empirical studies of student deficiency in reading text-like material (*21*:323-332). He concluded that difficulty with text-type paragraphs emanated from one or more of three sources: a] individual words incorrectly associated with their literal meanings; b] improper adjustment of meaning elements when formed into larger linguistic units such as phrases or sentences; and, most significantly, c] neglect in validating the resulting ideas against a personal act or purpose for the reading.

Ten years later, Gerald Yoakam published *Reading and Study*, a comprehensive survey of the literature on the two processes and their related problems (*23*). Yoakam included in this volume a personal investigation of the influence of a single reading upon immediate and delayed recall when the experimental selections included both social studies textbook content and narrative content. He drew the following conclusions from the students' average performance: a] the pretest of the content indicated that the pupils were familiar with 10-20 percent of the ideas; b] discounting this previous knowledge, the net retention ranged from 20-33 percent of ideas on immediate recall and from 10-15 percent on delayed recall of the several factual articles; and c] the results were substantially better with the narrative material—30 percent of the story ideas were known before reading, immediate retention was 80 percent, and delayed recall averaged 70 percent after a lapse of one to two months.

More recent data involving both good and poor secondary readers indicate that textbook difficulty continues to the point of defeat and antagonism. Penty's interviews with poor tenth grade readers (reading grade equivalent range of 4.3 to 6.9) revealed both an active dislike for those content areas in which reading provided the basic source of class activity, as well as an awareness that reading difficulty was the basic source of their dislike for the subject. These students also reported greater problems with understanding and retention than with word skills (*12:* 19-30).

Similar problems are reported by better secondary readers, although the specific pattern is influenced by the nature of the assignment. Michaels compared the reading difficulties of college-preparatory high school juniors who received either Pattern A (extensive reading assignments in varied sources to find information on specific topics) or Pattern B (intensive page assignments in a text to answer questions supplied and implied) (*11:*16-20). Both groups doubted that history content was within their range of reading ability. More of the members of the extensive reading group expressed such doubt (63 percent) than did those in the intensive text group (50 percent). The two groups reported somewhat different types of specific difficulties encountered. The difficulties mentioned most frequently by the extensive assignment group included: a] identification of relative importance of and relationships between ideas; b] inability to find sufficient information; c] inability to summarize or generalize on data; and d] inadequate background to interpret data in references. The intensive text assignment group mentioned somewhat different comprehension problems: a] difficulty with retention of information; b] difficulty with general comprehension; c] concentration problems due to lack of interest; and d] problems in denotation because of the density of facts in the text.

The Adequacy of Study Techniques

Students report little planned instruction and substained practice in study techniques as a part of regular content area instruction in the secondary situation. Many students equate a single reading of a chapter with effective study. The most frequently reported additional textbook study techniques consist of a] rereading and b] underlining (where permitted), followed by the noting techniques of c] abstracting, d] outlining, and e] summarizing. A systematic study procedure is more likely to be employed by the relatively small number of students who have taken a special college preparatory course in "efficient reading and study" (*6*).

Studies have confirmed doubt concerning the value of rereading a textbook assignment as rereading is commonly employed. Good found no significant improvement of undirected rereading over a single reading of factual content (*5*). Germane's experimental group, employing a single reading followed by mental summary of answers to questions, was superior by 54 percent accuracy to the control group which spent equivalent time in undirected rereading (*4*:103-112).

The results of other independent study techniques run in a similar vein. Arnold's subjects demonstrated little relative superiority (or general competency) in the techniques of underlining, outlining, writing summaries, reading, and rereading when used on selections of equated difficulty (*1*:449-457). Christensen and Stordahl compared the effect of including six different organizational aids (outlines, underlined parts, pre- or post-summary, statement headings and question headings) within the text of their moderate length experimental selections. The lack of comparative difference seemed related to the subjects' report of ignoring these aids (*2*:65-74). Investigations such as Salisbury's further suggest that the issue may be less a matter of comparative superiority of technique than it is of efficiency with any particular technique (*17*:111-116). Using high school subjects, Salisbury provided daily lessons in making notes of an outline nature for six weeks. Not until the end of the period did the experimental group become significantly superior in ability to comprehend study materials and in study performance in various high school courses.

Robinson feels that students will improve reading-study efficiency if taught the use of a specific reading-study model such as the SQ3R method. Using this technique, he has produced experimental evidence of superiority over unguided reading in both test performance and the ability to predict examination items—a most practical talent (*16*).

It appears, then, that without systematic training and practice in specific and general procedures, the secondary student is unlikely to improve upon the rather low level of understanding he gains from a first reading of his textbook. Undirected rereading appears to be the least effective of the study-learning skills. Hardly more effective is the mechanical, uncritical use of underlining and outlining. The value in teaching a study technique seems to increase substantially when emphasis is placed upon recognizing the idea relationships represented through the study technique. Practice to the point of automatic performance of the study mechanics frees the student to concentrate upon the ideas in the textbook selection.

The Useful Elements of Purpose, Preview, and Recall

There is good evidence that intensity and precision in the identification of a personal purpose in content reading exerts considerable influence upon immediate and delayed recall. A study list of questions produces better recall than does undirected reading (*8:*361-371). Questions given prior to reading a selection and just prior to the segment containing the information produce better results than questions given after reading (*22:*321-359). The use of feedback direction such as rereading to correct errors of interpretation also increases interpretation (*7:*119-125). Apparently good scholars and students with high standardized reading test scores need instruction on how to make flexible use of reading purpose as much as their peers with less general academic talent (*13:*193-200). The profit is gained in terms of comprehension per unit of time as well as comprehension per assignment (*15:*196-202).

The studies of Yoakam (*23*) and McClusky (*10:*521-529), like those of Robinson, substantiate the value of purposeful preview. Such a procedure seems to develop a more receptive reading-learning set, provides a familiarity with the idea scope and organization as well as the author's style, and results in greater speed of comprehension and accuracy of recall. The value, however, seems to depend upon the reader's personal acceptance of the value of the procedure.

Retention can be stayed, if not completely thwarted. As in original learning, purposeful review is important. Testing (whether by teacher or self) is particularly useful when it can be employed rather immediately after original learning and again at increasing time intervals (*20:*641-656). Otherwise, some form of reimpression (reading) is more effective (*19:*665-675). Meaningful organization of the material appears crucial to longer span retention.

Conclusion

Experimental evidence and pupil and teacher reports indicate that significant difficulty with the textbook as a reading-learning source continues today as Yoakam reported in 1928. We have learned a good many things about teaching reading-study skills and about better use of the content area resources in the intervening years. We need to learn more. However, our professional literature contains a great deal of information about the improvement of textbook interpretation which is seldom employed in the secondary school learning situation. It is commonly suggested that this is a factor which could be remedied by requiring professional courses in reading for secondary teachers. No doubt this would help. Nevertheless, such factors as instructional tradition, the nature of the content area textbook, and administrative convenience contribute to our backwardness in application. Not the least of such influences is the manner in which the use of the textbook fulfills the personal adjustment needs of the secondary teacher. The influence of teacher personality upon instructional procedure needs much investigation (*9:*116).

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4. What's Wrong with Reading Programs

TO INTRODUCE A NEGATIVE NOTE at this time is not to change the subject, *promising practices stemming from research,* or even to deviate from it. Instead, it is to suggest that research has offered more promise than we have fulfilled in practice. While my colleagues discuss specific aspects of this topic, I want to look at the "whole program," the package that is often the practice in our secondary schools.

Let's begin in a classroom in one of the disciplines so that we can see all the students, not just those singled out for special attention in the reading laboratory. Be it a class in business or physiology, the practice lags behind the research. Earnest, hard working teachers give each student a text, assign the reading, and then complain that one of the difficulties of teaching these days is the student's inability to read. For years, research has provided these appropriate guidelines for teaching skills in all classrooms: 1] explain the organization of the texts; 2] teach the vocabulary pertinent to course; 3] present a background for the material; 4] recognize the different skills needed to read that material; and 5] show the students how these skills are related to rate of reading and to comprehension. But the exhortation to follow these simple guidelines has gone unheard. Even a textbook analysis, taking not more than one period of class time, would help many students whose only reading aid at present is the number of pages to cover. In a few schools, demonstrations by the reading teacher may be a promising way for the classroom teacher to catch up with this practice. In the presentations in the history or science classes the reading specialist analyzes the text, reviews the guide questions, and determines the special skills necessary to read the assignments. From such a modest beginning, more teachers in a school may recognize the promise of this procedure for improving the learning environment.

Next, a change in test items might improve reading skills on a school-wide basis. The testing procedure using the same kind of items week after week may lead the student to detailed reading when skimming would be more appropriate. Teachers who acquaint themselves with the skills they require in their assignments go beyond these two improvements and take another step long advocated by those aware of the reading differences in our classrooms: differentiated assignments including an oral presentation for those unable to read. Should this practice become established, our colleagues would stop harrassing us with statements like "I thought John was in your reading class. So far he can't do the reading I require."

To move from the all-school practice to practices in the reading classes is to come to the specific concerns of many teachers. In the rush "to do something about reading," we have accommodated ourselves to bandwagon techniques as often as we have accommodated ourselves to good practice stemming from research. It is easy to follow the pattern established by the school district "down south" or "up state." Thus, to build a reading lab for 25 students, to equip it with carrels and machines to develop speed, and then to persuade an interested teacher (a trained one is unavailable) to take charge of students with many kinds of problems is common practice, rather than promising practice. (In one school I visited the carrels were ripped out after two months. The temperatures were unbearable!) Recent research in language or linguistics and factors related to reading make this kind of reading program more suspect than it was a decade ago when packaged materials and machines first became popular and were defended as devices for motivation.

Research in language has been related to beginning reading programs for some time. Its importance to secondary programs has been neglected and is only now being realized. The increasing numbers of severely retarded readers in our new high schools have necessitated a re-examination of our procedures. The workbooks for word analysis skills have paid little or no attention to dialect differences. Neither has the teacher. Regardless of their backgrounds, high school students with reading problems have been given the same materials. The Spanish-speaking pupils who have difficulty with pronouncing our *ng,* final *m* and *n,* as well as *s* clusters and final clusters, use the same materials provided for the slow learner and/or native speaker with a particular dialect. Between these extremes are the many dialect problems of the various cultural and ethnic groups in our school population. Linguists have told us no one phonics program can be satisfactory for all dialects, and a phonics program inconsistent with the dialect of the learner may confuse him more than it helps him develop fluency in word analysis. A study in Memphis of dialect patterns revealed that certain students substituted their spoken English, their own dialect, for the printed English. Not only the sound patterns, but spelling patterns of recent research, are overlooked. Spelling is still taught as a list similar to a primary list of sight words.

Hannah's research defines the spelling patterns we can and should teach (*4*). Aware of this research, we can only blush over our present practice of so many words per week, from *absence* to *zither*. Roberts' series of texts for the elementary school accent spelling practice based on research. This material would be useful at any grade.

Concurrent with pronunciation and spelling difficulties are vocabulary difficulties. We know dialects vary in meaning and the same word does not always express the same idea. Yet what happens in our reading classes? Students who are at similar comprehension levels, according to whatever test and text the school uses, complete the same exercises, generally silently, with no discussion of the selections and the vocabulary used. Our "silent" reading classes, with their emphasis on written materials, will perpetuate, not alleviate, vocabulary difficulties.

Research in language has also substantiated the relationship of reading interest and ability to verbal ability. The high school student who limits his communication with teachers to monosyllables and gestures finds the idea of reading difficult for social as well as psychological reasons: he can function without it and he has never had success with it. He does not see himself as a person who reads—either in the reading class or out. Holmes' research on the sub-strata theory about abilities related to reading can provide some guidelines for appropriate practices to help these students (*5*). You recall that Holmes lists four major subvariables: 1] knowledge of vocabulary in context; 2] ability to understand verbal analysis; 3] auding defined as the ability to manipulate verbal symbols; and 4] knowledge of vocabulary in isolation. These four have in common the ability to use the language as a symbolic system. The range of information the student possesses; that is, his awareness of the environment; and his general knowledge also contribute to the four variables. Clearly, to awaken an interest in reading the reading class must be a forum where the student can hear ideas discussed. Skills prerequisite to good reading cannot be practiced with materials insulated against the interests of the day which challenge many of our adolescents.

Our reading programs, built around some local research stressing magnificent semester gains in speed and comprehension, often use a lockstep procedure with so many class hours for each skill. Regardless of test results or implications from observations, each student does the same thing. Consciences are salved by levels of difficulty. Some students might profit from group learning while others might improve with the tutoring programs recommended for the less privileged. Reading teachers must explore the areas in which peer group help is effective.

An umbrella comment about reading practice is not complete without a mention of speed. Many guides for reading programs emphasize the daily use of speed tests for all. Yet speed tests pay no particular attention to content, to the students' interest in that content, or to the purpose in reading that content quickly. The student whose test results indicate that practice in skills should take the place of all speed exercises still does the speed drills with all the other members of the class. Increased speed is often a major goal in so-called development classes of college-bound students. Yet, these same students may be going into work requiring slow and careful reading. Moving with the speed of a sidewinder's tail across the page is not the sole desire of college-bound readers. For many of them, an opportunity to read widely might be of greater value than an opportunity to complete skill building exercises. Who does remember their content? A few years ago, one university administrator told parents that fifty dollars spent on paperback books was a surer way of helping Johnny to college than fifty dollars spent on a course to improve reading skills.

Finally, if skill and life-long interest in reading are our ultimate goals, reading material must be selected for these purposes. The material must have something to say. Our high school students are as concerned about what happens in Viet Nam as we are. The material cannot be such pap as the number of bottlecaps in a carload of pop; it must be literature, good literature, related to student concerns. It cannot reflect the teacher's tastes solely. Secondary teachers, according to Shores, are less accurate than elementary teachers in selecting books to fit student interests. The teacher must expand this interest.

What's wrong, then, with our reading programs? Too many packages are tied up in a hurry with only a loose string attached to research. Strengthening this string, always considering the implications of local situations, will indeed make our practice promising—promising for the future of literate young people who might be capable of a Watts riot or a White House Conference.

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5. Flexibility in Reading Approaches: Measurement and Development

PROBABLY FEW CHARACTERISTICS of "good reading" have been given more lip service than reading flexibility. Certainly none has been more subject to misconception, vagueness, and contradiction. Conflicting conclusions about the nature and meaning of "reading flexibility" have been drawn from research based on differing designs, on "one-shot studies," on the use of widely varying methods of measurement, and on other faulty investigations.

A survey of published studies indicates that most reading people equate "reading flexibility" with "rate flexibility" (*4*:187-191). The reader is compared to the driver of a car. He is instructed to "speed up" when he sees an easy reading road ahead and to "shift gears" to slower speeds for more difficult reading roads. This analogy of reading flexibility stems from the assumption that a reader can consciously and directly carry his reading speed at will (without unintentionally changing his reading purpose).

Does the reader have *direct* control over the rate of reading or is rate merely *one* component of reading which interacts with other more indirect processes? It appears that much of the disagreement and confusion centers on this issue. A secondary assumption has been that there exists a general reading ability applicable to all kinds of reading for all kinds of purposes.

From many studies of eye movements, the following conclusions are drawn:

1] the vast majority of readers untrained in reading flexibility do not change their kind of reading performance greatly even when instructed to read for markedly different purposes;

2] readers attempting to directly control their rate of reading do not understand what they are reading (*2*:187-202).

Furthermore, Spache has pointed out that there is no such entity as general rate of reading or a generalized kind of reading (*10*:30).

In light of this and other research (*4*:187-191), rate change can only be conceived as a *consequence* rather than a cause of reading flexibility. "Speed," "comprehension," and "speed of comprehension" are constructs. None is an end in itself and none is meaningful when divorced from real reading situations. A major problem in planning instructional programs to develop reading flexibility has been the failure to recognize its great complexity (*5*). Letson (*3*), Sheldon (*6*:299-305), Smith (*7*:17-23), Spache (*9*), Stone (*12*) and others have carried out important studies which lead to the conclusion that reading flexibility consists of the operation of many interacting factors rather than being one inclusive ability.

What, then, is reading flexibility? Continued research has led us to define it as the ability to utilize those fundamental reading skills, patterns of reading approaches, processes, and techniques required to achieve very different purposes for reading efficiently a wide range of materials. The flexible reader uses those patterns of reading approaches (*5*) particularly appropriate for the style, difficulty and ideational level, content, and theme of his reading and is guided by a suitable psychological set enabling him to anticipate the need for modifying his reading pattern.

The difficulty of assessing reading flexibility has contributed to the problem of understanding the concept of flexibility and translating it into instructional plans. Lack of definite measures results from inability to develop operational definitions and effective instructional programs.

General reading tests emphasize speed and/or accuracy of comprehension on single-purpose type reading. They do not show how well a reader has read for a number of different purposes. Such tests cannot distinguish the flexible from the inflexible reader.

If the presence and extent of reading flexibility is to be measured adequately, tests are needed which avoid pitfalls commonly present in such instruments. Davis (*1*:31 ff.) has pointed out that measurements of reading performance must clearly define purposes for reading each selection and must provide evidence that these purposes are being carried out. He (*1*:30-40) also cautions that reading selections are needed to measure reading performance under several differing purposes which include skimming and scanning, getting the main thought pattern, reading to learn the principal ideas, reading for thorough understanding of the content, and using appropriate reading methods in different subject areas.

Thus, tests measuring flexibility should contain several selections, each of which is long enough for reliability and validity. These selections should vary in style and theme, in content, in difficulty and complexity, and, most important, in assigned purpose. Any test measuring reading flexibility must require reading for a number of different purposes. Furthermore, the test should exemplify Davis' warning about using passages "about which it is possible to prepare questions that can be answered correctly (more often than chance will permit) only if the examinee has read the passage."

A judgment of reading flexibility can be formed by comparing performance on measures of rate, comprehension, and achievement of purpose. Such a comparison must involve the differential but interrelated nature of the subsystems of reading flexibility. For one system of scoring, see the discussion by Nason and McDonald (*5*). For an evaluation of other approaches see the reports by Smith (*7*:17-23). The validity of judging reading flexibility by such comparisons has been confirmed by eye-movement photography (*13*:187-202).

Use of reading rate measures as one of the indices in judging reading flexibility does *not* imply that rate is causative or primary in reading flexibility. Quite the contrary. Reading rate must be considered as the *consequence* of the appropriateness of the patterns of reading approaches utilized.

The nature and extent of instructional programs aimed at developing reading flexibility should be planned on the basis of the deficiencies and needs revealed by standardized assessment of the student's reading flexibility. Since reading flexibility requires high level reading abilities, in many cases additional testing may be necessary to determine whether students possess sufficient mastery of basic reading abilities such as perceptual skills, fundamental functional skills, and reading experience in general. It is futile to attempt to develop reading flexibility without insuring a sound and functioning reading foundation.

Test information and teacher observation should determine the kinds of reading materials, the nature and variety of reading tasks, and the amount of individualization comprising the developmental program for reading flexibility.

Spache (*11*:230-279) has warned that skills such as those vital to reading flexibility are achieved only by direct, planned instruction but that over-reliance on drills and exercises will merely result in a stereotyped approach to reading. Likewise, admonitions about the importance and desirability of changing reading performance do not produce flexibility. "Shifting reading gears" may be a lively figure of speech but it does *not* change patterns of performance in the desired direction.

Students should be provided with an extensive variety of reading, tailored to their levels of proficiency. Such reading materials should range from factual to fictional; from easy to difficult in style, content, and theme. Popularized non-fiction should be cheek to jowl with complex non-fiction. Light and interesting fiction should be shoulder to shoulder with theoretical and abstract fiction. All subject areas which the student is likely to meet at his present stage of development should be represented.

Since the student needs flexibility of attack, he should be taught to read for a variety of purposes. This instruction should demonstrate that patterns of reading approaches are influenced by several vital factors such as purpose for reading, the student's previous knowledge of the topic, the intrinsic difficulty of the subject, the style and vocabulary of the author, and the thematic approach.

The instructional program should require the student to appraise each of these factors before beginning to read any selection. Checks on the correctness of these appraisals should be provided. Students should be led—in gradual stages—from teacher identification of purposes for reading to self-establishment of these purposes. It is here that teacher support and individual conferences are extremely valuable. To become a flexible reader, a student must develop a psychological set which enables him to feel free to continually differentiate reading patterns to accommodate purposes, difficulty of material (*to him*), complexity of theme, background knowledge, as well as the urgency and extent of need to read the selection. All instruction in reading versatility must be clearly related to the kinds of reading which the student needs to do in his school situation.

Frequent informal teacher-made tests can provide teachers and students with indications of programs and continuing areas of need in developing reading flexibility. Letson (*2*) has described two types of such tests and suggests methods of developing and using them.

Analysis of these informal tests, supplemented by information from standardized tests of reading flexibility, should be used to modify the instructional program to correct deficiencies and provide for continued individualization of instruction. Group discussions of reading purposes and other factors encountered in the reading passages (of the informal tests), as well as appropriate reading patterns, enable students to understand the nature of reading flexibility. The touchstone of reading efficiency is reading flexibility. Research has shown, and continues to underscore, the great need for systematic instructional programs aimed at developing and maintaining this indispensable reading characteristic. Thus, reading instruction and assessment must be reshaped to include as a prime objective the attainment of reading flexibility.

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COMBINING RESEARCH RESULTS AND GOOD PRACTICE

READING SPECIALISTS

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1. Responsibilities and Qualifications of Reading Specialists

THE PANEL DISCUSSIONS which follow are concerned with research results which have practical applications for reading specialists. The term "reading specialists" includes reading consultants, remedial reading teachers, and reading clinicians. Therefore, the research reports presented deal with remedial studies, clinical studies, use of interests by reading specialists, and the responsibilities and qualifications of reading specialists. The last named topic will be discussed first.

The reading specialist is an innovation, historically speaking. It was not until the three decades of 1920 to 1950 that reading clinics began to evolve, that special supervisors of reading were first appointed, and that remedial reading teachers began teaching retarded readers. The period extending from 1950 to the present time has been one of phenomenal growth in reading specialization. During this period a few important studies have been made and some new possibilities for fruitful research have been opened up. Some of the most significant findings of the studies will be presented, and some of the newer areas of research exploration which should be especially useful to the reading specialist will be discussed.

The Role of the Reading Specialist

Dever (*9*) conducted the pioneer study on *Positions in the Field of Reading*. Her summary of the work of such specialists is as follows:

> These reading specialists and consultants devoted the greater amount of their time to teaching reading, supervision, testing and diagnosis, and counseling; their lesser functions were administrative and clerical work, research, public relations, and community activities. . . .

H. Alan Robinson (*19*) conducted a study titled *An Occupational Survey of Reading Specialists in Junior and Senior High Schools*. He found that the responsibilities of this group embraced such activities as these:

> Served as consultant to English teacher, served as consultant to other teachers, conducted in-service reading courses, helped teachers select reading materials, conducted demonstration lessons, supervised teachers of reading, undertook research projects, spoke to community groups, held conferences with parents.

The most recent study of the duties of reading specialists was conducted by Austin and Morrison (2). These investigators found that reading specialists were performing the following functions in terms of a percentage distribution.

Function	%
Development of reading goals and objectives	36.1
Implementation of the reading program	34.8
Appraisal of success or failure of program	24.7
Recruitment of reading personnel	12.2
Selection of reading materials	23.6
Supervision of classroom teaching	13.2
Providing diagnostic testing in reading	48.3
Providing remedial instruction	39.5
Supervision of reading in all schools	37.2
Supervision of reading in an individual school	15.2
Interpretation of the reading program	22.0

The report of Austin and Morrison (2) is rather discouraging in regard to limitations on responsibilities given to reading specialists in public school systems. In regard to the reading consultant they say:

> . . . only one-fourth or less of the systems assign to the reading consultant the responsibility for evaluating the reading program, for selecting reading materials, or for interpreting the reading program to parents and interested persons. It would appear, therefore, that in many school systems where reading consultants are employed they must assume more responsibility for the success of retarded readers than for teachers.

In summarizing the role of the remedial teacher they state:

> Aside from her role as special instructor to unsuccessful students, the remedial reading teacher is somewhat of a nonentity. This specialist's function ranks last in all other areas, including the area of diagnostic testing, where her talents could well be utilized.

There are two practical implications growing out of the results of these studies in regard to the role of the reading specialist.

[1] The reading specialist assumes a wide range of responsibilities. He should therefore be a very competent person *broadly* prepared for various kinds of duties.

[2] Administrators should have more information in regard to the roles of reading specialists and should give them more opportunity to help in evaluating reading programs, selecting reading materials, aiding classroom teachers, and in interpreting the reading program to parents and the community.

Status of Qualified Reading Specialists

In discussing this topic we might first mention that several studies have shown that people who hold supervisory positions in general often "fall into these positions." Many of them do not have any special preparation for such work. In terms of research in reading it would appear that the same situation prevails to a considerable extent in this specialized field.

The studies conducted by Simmons (*21*:86-88), Braam and Roehm (*8*:188-196), Robinson (*19*), Dever (*9*), and Austin and Morrison (*2*) all reveal needs for better preparation. All of these investigators found that while there are many well-qualified reading specialists, there also are many others serving as specialists who have had little or no preparation in reading. Many studies also have shown that classroom teachers often do not receive adequate preparation in reading in their pre-service college programs.

The practical applications of these research findings are:

[1] Preservice students at the elementary level should have better preparation through courses in reading that not only deal with theory, but more with practical methods applied to meaningful situations that are closely tied in with classroom practice.

[2] All pre-service students majoring in secondary fields regardless of whether the area is science, social studies, mathematics, or some other subject should have at least one course in reading as a part of their respective curricula.

[3] All in-service secondary teachers who have not taken recent courses in reading should either take a college or an in-service course in this subject.

[4] Reading specialists who are not fully prepared to assume their duties should plan immediately to take special courses in reading and

related areas, attend NDEA Reading Institutes if possible, attend conferences and conventions on reading, join the International Reading Association and a local council of this organization, and pursue vigorously recent books and periodicals dealing with reading. In summary, if they are not prepared they should exert themselves to get prepared immediately.

[5] Many more people should enter upon graduate programs of reading specialization in order to meet the demands for qualified personnel in this field. Demands greatly exceed supply.

What Should Be the Nature of Graduate Programs in Reading?

There has been one study on this topic and much discussion concerning it on the part of reading authorities.

Helen Robinson (*20*:334-39) made an analysis of various proposals for courses suggested by 109 teachers of remedial reading in regard to courses necessary for remedial teachers and clinicians. There was wide agreement on the following items:

[1] A broad background in educational psychology, mental hygiene, the nature of reading deficiencies and related causal factors, remedial and therapeutic measures, pertinent tests and diagnostic instruments, and case study technique.

[2] Wide participation and guided practice in selecting and using tests and other diagnostic instruments, in interpreting the data secured, in the use of various remedial and therapeutic measures, and in preparing and interpreting to others reports of diagnosis and remedial treatments.

[3] Broad familiarity with the literature of the field and the results of relevant research; capacity to read critically and evaluate published studies and to apply the findings in appraising and using diagnosis and remedial procedures.

As for preparation of "Supervising Reading Specialists," Gray (*14*) suggested a still broader program as indicated below. While this program did not result from research, it represents the thinking of an eminent authority and is included to round out the discussion.

Gray suggested that the supervising reading specialist should have all the courses mentioned above for the remedial reading teacher plus courses in literature for children and youth, mental testing, emotional factors in learning, and guidance. He also recommended an additional year of study devoted to an internship which provides participation in supervisory activities at all school levels and which is accompanied by weekly seminars.

The practical implication in regard to graduate programs designed to prepare reading specialists for their responsibilities is that we should conduct additional research to find out the special needs of different types of reading specialists, and then set up differentiated college programs in terms of these specialized needs rather than offering only one program for all types of reading specialists as is commonly done.

Development of Leadership Qualities

A new area of research has been opened up in regard to the development of leadership qualities in those who are holding, or who expect to hold, responsible positions in education. Several studies that have been conducted recently in regard to this topic, while not concerned with reading *per se,* certainly are concerned with qualities which reading specialists should possess. The very nature of the work which the reading specialist does demands contacts with many different people: children, parents, teachers, administrators, and those representing special services. Coordinating and aiding all of these people in making their maximum contributions toward the improvement of reading requires a high degree of leadership. While reading specialists coming from our colleges today are usually well versed in reading skills, rarely are they given preparation in leadership.

As an example of a leadership study, mention might be made of an investigation conducted by Farley and Santosuosso (*10*) titled "Developing Competence in Democratic Group Leadership." The research techniques used are too complex to discuss in this space. The findings, however, are very important and some of them will be given.

These investigators stated that "inadequately trained leadership appears to be the greatest lack and a major handicap to effective supervision." One other very important conclusion which they drew from their investigation was: "Leaders can be trained to develop insight and perform creatively in the act of guiding, directing, and influencing people."

The practical application of leadership research is that it offers evidence to the effect that it is possible to develop leadership qualities. Those preparing to be reading specialists or now serving in such positions would do well to read the references (*5*), (*10*), (*17*), (*22*) in the bibliography that follows, and, if possible, to take a course in which leadership is given major consideration.

Ascertaining Expressed Needs of Teachers

Throughout the years that reading consultants and supervisors have been working with teachers they have, in general, assessed teacher needs in terms of their own personal judgment based largely on observation. A recent and desirable trend is that of assessing needs, understandings, and attitudes of teachers, as expressed by the teachers themselves in relation to their successful teaching of reading. The results of two studies of this type will be presented briefly.

Adams (*1*:260-64) found that elementary teachers expressed a need for better understandings having to do "with the nature of the reading program, readiness and motivation, individualization and ways of working, teaching reading skills, materials and resources, and evaluation." Some 90 per cent indicated "great need" or "some need" for learning about corrective and/or remedial reading, diagnosis, and treatment of reading problems and ways to meet individual differences.

Braam and Roehm (*8*:188-96), in a study of 70 high school teachers in various content fields, found that there was a discrepancy between reading experts and these teachers in their understanding of reading skills and the conflicting perceptions of the teachers with respect to student competence in reading. They concluded further that there was an aparent failure of either the formal or in-service type of training in the teaching of reading, or of the existence of a reading program and/or a reading specialist in altering, in a positive and effective way, the teacher's awareness of needed reading skills or the strength or weaknesses in reading of the students in their classes.

The investigators mentioned above and those who have conducted similar studies (*13*:224-29), (*18*:75-80, 114) make no attempt to generalize their findings in their application to a large population of teachers. They reported findings only as revealed by teachers in a local situation. The practical implication of such studies is that they suggest a valuable technique for the use of reading specialists. Teachers are often aware of acute needs which the reading specialist might not discern. On the other hand, teachers' own responses often reveal their unawareness of important needs to which they should be giving consideration. In either case the reading specialist can work more effectually with teachers if he has information in regard to needs directly expressed by the teachers themselves.

Interaction Analysis of Teaching

Another recent area of research exploration which should be of interest to specialists who work with reading teachers is that of interaction analysis of teaching. In conducting a study of the interaction analysis type, data are collected in regard to the verbal or non-verbal behavior of teacher and pupils during a teaching period. Various techniques are used in gathering these data, such as tape recordings, shorthand accounts, television, classroom observation records, and forms including predetermined items to be checked. The data thus collected are then analyzed to assess the effect of the verbal or non-verbal behavior on learning.

This is a very significant area of research in regard to improvement of teaching. Procedures used in the studies that have been conducted do not lend themselves to description in this brief presentation. If the reader is interested in doing interaction analyses, it is suggested that he read some of the references that follow in the bibliography, particularly (*3*), (*4*), (*6*), (*7*:7-24), (*11*), (*12*) and (*16*).

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2. Clinical Studies Useful to the Reading Specialist*

CLINICAL STUDIES IN READING, as perhaps all human endeavors, appear to go through cycles. In a critical vein, we may speak of these cycles as fashions. In a more serious vein, we may speak of them as trends.

What are the current trends in clinical research? Let us examine them under the three concerns of the clinician—etiology, diagnosis, and remedial treatment.

Etiology

Considerable effort has continued in the search for the cause or causes of reading disability. In examining the major research efforts over the most recent years, one is struck by what, in a broad sense, may be characterized as the completion of a circle. After several decades of emphasizing multifactor theories of causation (*8; 10; 13*), with a heavy stress on instructional, motivational, and psycho-social factors, the current major trend has been toward a search for biological-neurological factors (*12*:433-38; *13; 15*:42-44; *16*:95-102). In essence, this is a return to an older conception of reading disability, more common in the late 1800's. While current investigations acknowledge that poor reading may stem from a variety of causes, they tend to present evidence to support the hypothesis that perhaps the hardest core of reading disability cases cannot be attributed solely to instructional, emotional, or motivational factors. Thus Rabinovitch (*11*:1-5), in a recent study of 500 children at the Hawthorne Center for emotionally disturbed children, found that 60 to 65 per cent of the total group (and 75 to 80 per cent of the girls) did not have learning problems, although they had severe emotional problems. He concluded from these findings that emotional disturbance does not necessarily interfere with learning, particularly among girls.

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*I wish to acknowledge with grateful appreciation the assistance of Lucy Carroll.

However, he did find "primary reading disability" in 3 per cent of the emotionally disturbed girls and in about 25 per cent of the boys in the same group.

There has also been a tendency to use different terminology to label children with reading problems and to view them as qualitatively different from normal readers. While in the 1930's, 1940's, and early 1950's investigators tended to refer to children with reading difficulty as "retarded" or "poor readers," and saw them as differing *not* in kind, but in quantity of reading achievement (when compared with those making normal progress), there is currently a greater tendency to view reading disability (at least the severest variety) as a special phenomenon. There is a return to older terms such as dyslexia, and a tendency to use such "new" terms as "children with specific language disability (S.L.D.)," "children with developmental lag," "perceptually handicapped children," "children with primary reading disability," and the like. Generally, there is much overlap in the use of these "newer" terms with the more common "older" terms—"poor" or "retarded readers."

Our major purpose here is not to delineate or evaluate these various theories of causation. What we are concerned with here is the translation of research findings into practice. How can the recent research efforts in causes of reading disability be translated into good practice? First, it appears that the current research in etiology makes it obvious that severe reading disability is a much more serious problem than we have been willing to admit. While reading disability can be treated with proper remediation, it appears that pinning our hopes on "stimulating" or "motivating" the child, or on making a normal reader of him by clearing up his emotional problems through psychotherapy, is bound to be disappointing. It appears, instead, that we are faced with children who have, as Rabinovitch and others note, problems in dealing with symbols and in integrating the meaningfulness of these symbols. Treating such children takes considerable time and effort in special instruction. Indeed, analysis by Balow (*1*:581-86) of children with severe reading disability who were retested after 9 to 36 months of remedial treatment suggests that severe reading disability is only temporarily alleviated by intensive remedial instruction. He notes that severe reading disability should be treated as a chronic illness needing long-term, supportive treatment.

If reading disability is viewed as an illness, then early detection and treatment is important. This is, in fact, what Schiffman's (*15*:42-44) survey of ten thousand children suggests. He found that pupils with reading problems who were identified and treated in the second grade had ten times as great a chance for successful outcome of the remedial treatment as those identified and treated in the ninth grade.

This brings us to the importance of identification, and particularly early identification. What is new in diagnosis that may be of value to the reading specialist?

Diagnosis

Recently, there have been two significant research trends—the search for and development of preschool predictive tests, and the construction of multi- and single-factor diagnostic instruments that suggest remedial procedures.

Probably the most significant recent research in diagnosis is the prognostic study by de Hirsch, Janksy, and Langford (*4*:93-119) designed to identify children in kindergarten who have a high probability of developing reading, spelling, and writing disability. Based on a study of 53 children of kindergarten age who were given 37 tests of perceptual-motor and linguistic development, the authors developed a Predictive Index consisting of ten tests which, when combined, most effectively identified children with such problems at the end of the second grade. The ten tests are: Pencil Use; the Bender-Gestalt Test; the Wepman Auditory Discrimination Test; Number of Words; Categories; Horst Reversals; and the Word Matching, Word Recognition I and II, and Word Reproduction subtests of the Gates Reading Readiness Test.

A significant contribution in the development of a multi-factor diagnostic instrument that suggests remedial procedures is the work of McCarthy and Kirk (*9*) who developed the Illinois Test of Psycholinguistic Abilities (ITPA). Unlike other screening devices and test batteries which test one or several correlates of reading achievement, the ITPA is based on a theoretical model of the language process. Divided essentially into three parts, measurements are made of 1] decoding processes, 2] association and automatic sequential processes, and 3] encoding processes. Various aspects of auditory, visual, and motor efficiency are recorded on a profile of ten psycholinguistic abilities.

The ITPA, developed at the University of Illinois Institute for Research on Exceptional Children, has been used largely with children with cerebral palsy, brain damage, and mental retardation. Extensive work has been undertaken to standardize the tests and norms have been established covering an age range of from two to nine years. A number of case studies are presented in the manual, mostly of children with severe learning problems. An attempt is made to study each pupil's profile of psycholinguistic abilities and to design a therapeutic program to utilize his strong abilities and to train the weak ones.

The ITPA is largely an initial diagnostic instrument, and more specific areas of weakness may need to be diagnosed in greater detail with other tests. The teacher will also need to exercise considerable ingenuity to interpret the strengths and weaknesses into specific programs of instruction. But the test does seem to be a step in the right direction. It indicates the relative strengths and weaknesses of each child and suggests the possibility of an optimal program to accommodate the various learning abilities and disabilities. Bateman (*2*) reports the use of the ITPA with children with reading disability.

Among the recently published single-factor tests are the Frostig Developmental Test of Visual Perception (*6*), the Wepman Auditory Discrimination Test (*19*), and the Roswell-Chall Auditory Blending Test (*14*). Frostig has, in addition, designed an instructional program for use with pre-school, kindergarten, and first grade children, and for older children who on her test show deficits in visual perception.

The above trends in diagnosis are far from exhaustive. Informal instruments are currently in use in clinics and for research purposes to measure the various linguistic, perceptual, and other factors commonly associated with severe reading disability. See, for example, Silver and Hagin (*17*) who use the following instruments: Bender-Gestalt, Marble Board, Tactile Figure Background, Extension Test, Right-Left Discrimination, Wepman Auditory Discrimination, Goodenough Drawing, and Finger Schema Test.

Remediation

What can we learn from the recent research that is relevant for improving remedial programs? Here, unfortunately, we are still pretty much in the dark. In spite of the recent research, we as practitioners are still far from knowing what specifically to do for what child—even though we have more sophisticated reasons to explain his failure, new labels by which to classify him, better batteries of tests to predict whether or not he will fail, and new tests to measure his strengths and weaknesses.

In the past, remedial efforts have generally taken two different directions. One direction has been to translate diagnostic findings into remedial programs that rely on methods using a pupil's strengths and avoiding his weaknesses. The other direction has been to develop the pupil's area of weakness. Recent trends continue to go in both directions. Thus, de Hirsch, Jansky and Langford (*4*:93-119) suggest that patterns of modality strengths and weaknesses should determine teaching methods. For example, children weak in visual-perceptual areas but good in auditory factors should learn by a phonic approach; those weak in both should have a multiple (including kinesthetic) approach, and so on. Unfortunately, except for clinical, descriptive reports, we have practically no evidence that this is the best way to do it.

The stronger trend, and "hope" in remediation, has been to strengthen the weaknesses uncovered by diagnostic tests. Thus Frostig (*7*), Silver and Hagin (*17*), McCarthy and Kirk (*9*), and Delacato (*5*) suggest remedial treatment based on strengthening the particular perceptual linguistic, or perceptual-motor deficits. Here, too, there is a paucity of evidence to suggest that this is the best practice to follow.

Silver and Hagin (*17*) are, however, currently engaged in a controlled study that may give us the kind of evidence that is sorely needed. They have been studying a group of 20 boys—aged 8-11, with WISC IQ's above 85—all diagnosed as having reading disability. The boys were matched on the basis of age, IQ, and achievement, and were divided into two groups. The experimental group is being given a series of visual, auditory, tactile and kinesthetic exercises to overcome their deficits in these areas. The control group is receiving conventional remedial instruction from a basal reading series. A preliminary report, after six months of instruction, indicates that the experimental group improved significantly in both perceptual abilities and in reading achievement. No such changes were found in the control group. While the results suggest promise for the value of perceptual training, a weakness of the study is the use of conventional basal readers with the control group, which probably was not the best treatment for the children. A more crucial test would have been a remedial program for the control group geared specifically to their strengths—or one that programed the learning of the sound-symbol relations in a more systematic manner than is usual in conventional basal series.

Summary

In spite of recent clinical research, which is highly promising, the reading specialist is nowhere near a simple solution to practical daily problems. The research points to no single test or even a battery of tests which can be given to children, whose results would suggest a clear-cut remedial program. True, there has been a growing awareness of the subtle perceptual-motor, linguistic, and cognitive deficits that distinguish the disability child from the one making normal progress. But, we are far from agreement as to how important these are. There will, no doubt, continue to be debates on the basic cause or causes of reading disability. But that is really the least of the problems facing the reading specialist who advises the teacher daily on how to treat Marvin, Michael, and Mary.

In spite of the paucity of evidence of its effectiveness, many reading specialists are pinning their hopes on the training of perceptual deficits. There may be something in it, but I believe we must be cautious in accepting it as *the new panacea.* True, it is possible to train visual and auditory perception. But, will it carry over to reading? Is it worth the time and effort involved? Is it better than good remedial instruction? And if so, for what kinds of children? Some of the deficit-training programs that claim to be effective employ other good remedial techniques, and we are still left with the question of whether it is the perceptual training, the remedial reading, the special handling, or perhaps all of these that make for the improvements reported.

Although I hesitate to conclude that our solution lies in more research, for this is an easy way out, I cannot escape it. We must have more *and better* clinical research.

My second point is that we must not give up too easily on our search for improved remedial reading techniques, especially those designed to teach more effectively the decoding aspects of reading—those aspects with which the severest reading disability children have the greatest difficulty.

My third and final point is that we continue to develop beginning reading programs for regular classroom use that result in fewer failures, particularly among those children predicted to have difficulty.

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3. The Study and Use of Interests by Reading Specialists

IT IS GENERALLY RECOGNIZED that interest is of primary importance in successful clinical, remedial, and consultant endeavor. Yet it is surprising to note the small amount of attention this factor is given in diagnostic and remedial efforts.

Definition of Terms

There are many definitions of interest and of interests; some are involved and circuitous. A most useful short definition was proposed by Jacob W. Getzels who wrote: "An interest is a characteristic disposition, organized through experience which impels an individual to seek out particular objects, activities, understandings, skills, or goals for attention or acquisition" (7).

A somewhat similar definition has been employed by the writer, who stated that interest may be regarded as a disposition to seek out particular goals for persistent attention. The behavior patterns shown in seeking these goals may be looked upon as particular interests, such as collecting objects or televiewing. Such interests are usually acquired and depend upon each individual's nature and particular experience. These responses are strongly motivated and their expression implies "interest" or "drive."

Reports of Research on Reading Interests

To understand and appreciate interests, one may examine the literature on this topic and observe characteristic trends in the behavior patterns of children and youth. There are, of course, numerous studies of interests, although many of them were published prior to 1940. A summary by the writer appeared in *Elementary English,* November, December, and January, 1960-61. Perhaps the most recent comprehensive investigation was made by the writer and his associates at Northwestern University in 1958-1959. The entire April, 1963 issue of *Education* is given over to reports of the role of interest in improving the reading of pupils from the primary grade level throughout the high school. Two other references may prove especially helpful to reading specialists, since the reports deal with interest in reading: *Development of Permanent Interest in Reading* and *The Role of Interest* in the 60th Yearbook of the N.S.S.E., *Development In and Through Reading* (*21*).

The techniques used in the recent studies have varied and have included the questionnaire, the interest inventory, the anecdotal record, and varied forms of observation. A child-study technique widely used by teachers is the Northwestern University Interest Inventory (*18*). Guided by the inquiries found therein, the teacher and the pupil discuss informally topics such as favorite leisure activities, hobbies, vocational ambitions, play preferences, habits related to TV, radio, and movies, reading, and familiarity with community places of interest. The inventory also contains questions related to the child's personal and social problems. Included too are lists of play activities and of books to be discussed.

In this study approach, interests and needs are intimately related. The entire April 1964 issue of *Education* is given over to developmental needs, and research studies are cited. It may be seen that interests and needs are closely associated and sometimes merge. As Muriel Crosby says:

> All children, like all adults, have problems. Books will not by themselves solve children's problems or adults' problems. But books may help. . . . A skillful teacher is seeking constantly for ways to help children face problems, see them in perspective, and deal with them adequately. One of these ways is centered in reading (*2*).

Adolescents, too, may be helped by reading, as Frieda Heller suggests:

> If the adolescent wishes help in understanding himself there will be titles similar to Bro's *Let's Talk About You*, Strain's *Teen Days*, Fedder's *A Girl Grows Up*, Fosdick's *On Being A Real Person*, or Shacter's *How Personalities Grow*. . . . (*9*)

Geneva R. Hanna and M. K. McAllister provide, in their provocative book, *Books, Young People, and Reading Guidance* (*8*), a helpful analysis of timely books to meet adolescents' needs. Teachers will also find valuable suggestions in *Reading Ladders for Human Relations*, edited by Muriel Crosby (*3*).

Case studies show unmistakably the beneficial results of "bibliotherapy." However, Ruth M. Toos suggests that this process be "planned, conducted, and controlled under the guidance of a physican . . . and administered by a skilled, professionally trained librarian . . . (*19*). Under such conditions, the procedure has been individually beneficial. A somewhat different approach was suggested by David Russell and Caroline Shrodes who stated that the use of bibliotherapy "does not assume that the teacher must be a skilled therapist, nor the child a seriously maladjusted individual needing clinical treatment. Rather, it conveys the idea that all teachers must be aware of the effects of reading upon children and must realize that through literature most children can be helped to solve developmental problems of adjustment which they must face" (*15*).

Richard L. Darling points out that "bibliotherapy" seems to be a misnomer and suggests that the term "preventive bibliotherapy" be applied to the use of reading to foster personal and social adjustment (*4*).

Research continues to yield contradictory results concerning the effects of reading upon boys and girls. In the early studies, Nila B. Smith found that reading affected children but that the results of reading were highly individual (*16*). Seldom have the attitudes of two or more children in a class appeared to have been modified by the same book. Samuel Weingarten later reported similar results for junior college students (*20*). Although David Russell concluded that "we don't know much about what reading does to people" (*4*), it appears that significant changes in individuals can be attributed to reading when it is combined effectively with other experiences. Accordingly, the reading specialist should attempt to offer guidance in accordance with individual pupil interest and need.

At Northwestern University, we have used for many years an interest inventory in informal interviews with boys and girls referred to the Psycho-Educational Clinic. We have more recently devised a series of questionnaires to be employed in studying interests and needs (*18*). The items were assembled from diverse sources and listed in four questionnaires which deal with play and recreation; TV, radio, and movies preferences; reading pursuits; and vocational and educational interests.

These questionnaires were used by the writer and his associates in several large scale investigations. In addition, the writer has studied children's interests in the mass media in greater detail. Each year since 1949, he has investigated the mass media participation of representative samples of elementary and high school pupils as well as their parents and teachers in the Chicago area.

Perhaps the most outstanding result of these studies is the clear-cut demonstration of the impact of the mass media upon boys and girls. An average of 21 hours per week was reported to have been devoted to TV by the elementary school pupils in 1949-1950. The figure dropped to 19 in 1951 and rose again to an average of 20-21 hours per week reported year after year by elementary school pupils. In 1965, the average was 20 hours per week. In the first grade, it was about 15 hours and rose to a peak of 25 in grade 5. Throughout the investigations 12-14 hours was the weekly average for high school pupils. The parents in these surveys reported giving on the average about as much time per week to TV as did their children. The teachers' average was lower—about 12 hours per week.

According to these studies, elementary school pupils see many variety shows, cartoons and comedies, adventures and mystery features, western, and science fiction programs. Much of their viewing has been characterized as "fantasy." High school pupils also see a variety of offerings which serve mainly as entertainment and escape. Seldom are educational channel offerings cited among the "top" favorites.

Radio still attracts pupils despite the stronger appeal of TV. In 1965, the pupils in grade 2 stated that they spent about three hours each week listening to radio, while in grade 5, the weekly average was about eight hours. Programs featuring music were given first place; baseball was second for the boys, news for the girls. High school students said that they spent about 12-14 hours each week listening to the radio—about the same amount of time they gave to TV. On the average, the pupils attended movies outside the home about once every two weeks.

Some parents and teachers have been greatly concerned over the effects of the mass media upon boys and girls. They have repeatedly stressed their desire for better offerings and have voiced again and again their concern about the large numbers of presentations featuring crime and violence. Many point out that the greatest need appears to be for a constructive program of guidance both in the home and in the school. Yet only a small percentage of the pupils stated in 1965 that their parents counseled them regularly in the selection of TV programs. Several studies show clearly that few parents now appear to offer regular guidance. For example, Robert D. Hess and Harriett Goldman attempted to ascertain, through interviews, parents' views concerning the effect of televiewing. One phase of the study dealt with the extent to which parents supervise or control children's viewing.

> 1] In the majority of families the young child watches almost as much as he wishes, and, for the most part, views programs of his own choice. 2] In the majority of families, mothers make little effort to supervise either program selection by the child or the total amount he watches. 3] In most families, the father has little voice in determining the television behavior of his child (*10*).

In one investigation we studied the relationship of amount of televiewing to grades in school, IQ, and anti-social behavior since it is frequently stated that scholarship and behavior are adversely affected by excessive televiewing.

Our studies show little relationship between amount of time spent televiewing and any of these factors. Nor can it be demonstrated conclusively that aggressive behavior is traceable to large amounts of televiewing. We are inclined to agree with Joseph Klapper who states:

> The results of several studies indicate that exposure to crime and violence in media is not a crucial determinant of behavior nor of attitudes which might be manifested in behavior. On the other hand, there are indications that such fare may serve special functions for those who are already socially maladjusted (*11*).

We might add that children may, by too frequent exposure to programs emphasizing violence, gradually come to accept crime and destructive acts as almost normal ways of life. Their sensitivity to human suffering may also become dulled. On the other hand, it is generally agreed that a great potential resides in TV and the other mass media for motivating constructive endeavor of many kinds.

For many pupils, and for adults as well, lack of interest appears to be an outstanding factor in failure to read widely and well. For such individuals, an association of reading with strong interests may have positive values. Such an association was in part responsible for the remarkable success of the army's program developed during World War II for functionally illiterate men. Undeniable evidence was obtained of the value of a program of group and individual instruction closely associated with interests and needs (*25*).

Case studies also show the value of the use of strong interests in fostering effective reading (*23*). Moreover, reading experience chosen in accord with interest and need has been shown to lead pupils to attain a better understanding of themselves and their social environment. In some cases reading seems to assist in the building of a more suitable ideal of self, as well as in the establishment of favorable attitudes (*22*).

In educational periodicals and books, there are a number of recent accounts in which gains in reading skills are reported in programs based on study of pupil interests. Several such accounts are found in the monograph *Developing Permanent Interest in Reading* (*14*). For example, Caribel M. Nayder stresses the responsibility of the teacher for ascertaining and utilizing interests as well as the desirability of teachers working cooperatively with parents (*13*).

Several articles have also cited the use of TV interests to foster improved attitudes toward reading as well as greater skill in reading. In a provocative article, Charles G. Spiegler emphasized the potentialities of TV and stressed the significance of the interest factor.

> Beyond a doubt Johnny reads if his interest is stirred, and beyond a doubt, Johnny can be taught reading if interest is the keynote. . . . Even with the slowest readers, the teacher makes interest the bridge (*17*).

In another article on effective ways to adjust instruction to individual differences in grades 7 to 9, Leo C. Fay states:

> Take advantage of interest. A strong interest in a particular topic is often motivation enough for a student to read what for him would be relatively difficult material (*6*).

As early as 1939 Paul Witty and David Kopel reported significant gains in classes of very poor readers who, in elementary and secondary schools, were offered appropriate level reading experience based on the results of studies guided by an interest inventory. Several other accounts of similarly successful efforts are found in the 60th Yearbook of the N.S.S.E., *Development In and Through Reading*. The work of H. E. Darrow and V. M. Howes also gives evidence of the value of individualized reading associated with the study and use of children's interests (*5*), as do the results of programs employing personalized reading (*1*). Additional evidence of the importance of interest in class endeavor is found in the entire issue of *Education*, April 1963. The reading specialist should also be acquainted with the role of interest in the language-experience approach to reading (*12*).

Direct instruction associated with the use of TV or movies in the classroom has also proved effective in stimulating interest in reading. Despite these great potentialities critics of TV continue to point to its undesirable features. The antidote to the undesirable aspects of TV lies in the provision of a constructive program of guidance.

Advisable Approaches in Utilizing Research Findings on Reading Interests

Because of the impact of the mass media and other interests and their potentiality in offering effective motivation, it is clear that reading specialists should make an effort to study pupils' interests as well as to recognize the importance of the interest factor in effective reading instruction. The following steps might be followed by reading specialists:

1] In addition to obtaining data on physical development and measures of mental ability and educational attainment, reading specialists should appraise the interests of every boy and girl to whom they attempt to offer help and encouragement in reading.

2] Specialists in reading should try to encourage boys and girls to take advantage of opportunities for varied play activities and for creative pursuits of many kinds. A balanced program of leisure activities should be sought.

3] The reading specialist should use child study approaches in his efforts to understand the behavior and motives of children and youth. They should find out the programs pupils are seeing and the amount of time they are giving to TV, the radio, and the movies. It will be helpful to discuss with the pupils the merits and limitations of favorite programs and to talk over the ratings given to TV presentations by various organizations. Pupils should be encouraged to see certain programs and to give their evaluations.

4] Specialists should encourage the initiation of family or school councils designed to suggest effective ways of budgeting time and of planning leisure activities. Criteria for the selection of TV programs and other activities might also be developed. Individual guidance in recognition of the uniqueness and varied needs of each pupil should then be offered.

5] Reading specialists should recognize that interest in reading is often a product of improved and efficient skills. Accordingly, systematic instruction for every pupil whose reading skills are considered inadequate should be provided.

In the cultivation of interest in reading, the importance of assuring the development of effective, flexible skills can scarcely be over-estimated. For the satisfaction of interests and the fulfillment of needs through reading cannot be realized fully unless the pupil is skilled in reading. Moreover, the steady acquisition of ever-increasing ability makes possible the extension of reading experiences. To become effective readers, pupils need to enjoy the act of reading and its results. They will enjoy the act through the acquisition of reading skills which can be applied readily in various situations. And the results of reading will be appreciated when reading is based upon or associated with interests and needs.

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4. Remedial Studies at Elementary Level: Their Implications for Classroom Practice

AT THE OUTSET PERMIT ME to state a bias for which I cannot cite much research, let alone carefully controlled investigations. It is simply this: there are no real basic differences between developmental reading and remedial reading; if differences do exist, these differences are not of kind but degree. Naturally, children whose reading difficulties originate in organic dysfunction might require unique treatments. Although some of our colleagues suggest that there are more children of this type in our classrooms than we suspect, no real evidence to support this judgment—other than that these children fail to respond to help—has been found.

If we can accept this basic premise about a lack of difference between developmental and remedial reading, we might extend some of the findings of research with poor readers to typical readers. Even if we were to reject the assumption, it would not be improper, without evidence to the contrary, to suggest the *possibility* that procedures found useful with poorer readers might also be helpful with other readers.

Before we consider the findings of research with remedial readers and their classroom implications, we should note that some of them are not the products of rigorous research. Thus I prefer to look on them as suggesting trends rather than demanding convictions. Naturally, findings from even tenuous research which support our ideas strengthen convictions. We should note further than much of the research dealing with poor readers deals with factors related to their problems (laterality, for example) which do not have immediate implications for the classroom teacher. However, in spite of these noted reservations we can obtain some guidelines for working with children who have reading difficulties (and those who don't) from the results of research.

Let us now examine four aspects of our topic—evaluation, organization, methods and materials—and suggest some useful practices that emanate from studies about problem readers.

Evaluation

If we are to reduce or eliminate the reading difficulties elementary school pupils experience, we must determine what they are. In addition, we must know at what levels to offer instruction and the levels at which pupils can read books without much help from us. Most schools administer standardized reading tests for children in order to find out at what level they are reading and what their reading needs and strengths are. What does research tell us about how well these tests and their results provide us with this information?

Williams (29) sought to determine, among other things, whether there were any significant differences in the results obtained from standardized reading tests and informal inventories for normal and poor readers. She obtained data from three standardized tests and informal reading inventories based upon three reading series for pupils in the intermediate grades, and concluded that the tests placed the pupils in materials too difficult for them to use for instruction, averaging one to four years above their ability to read in books.

McCracken (*19:*366-69) compared the scores sixth grade pupils obtained on a standardized reading test and a test based upon a basal reading series. He found that 93 per cent of the pupils would meet many difficulties in reading the books. On the average, standardized test scores placed pupils about two years above levels obtained from the inventories based upon the readers.

Sipay (*24:*265-68) studied 200 fourth grade pupils to discover if the results obtained from three standardized reading tests parallel those secured from an informal reading inventory. He found that all the tests overestimated the instructional level by one or more years when 96 to 99 per cent word accuracy was used as the criterion. Two of the three tests underestimated by one grade the frustration level when below 90 per cent accuracy in word recognition was used as the criterion.

Kress (*14:51*) reported a case study of a poor reader whose standardized test score was compared with the results of an informal inventory. He found that the standardized test placed the pupil at fourth grade level while second grade level was more appropriate for instructional purpose.

In a somewhat different but related study, Long (*17*) analyzed the reading difficulties of poor elementary school readers with standardized reading tests and informal inventories and concluded that teachers generally fail to provide instruction at a sufficiently low level and in the skills required by these poor readers.

Some writers (*1*:21; *2*:377; *12*:33; *30*:143) have pointed out the weaknesses of standardized reading tests—their placement of pupils at too-high levels and the limited amount of information they yield. However, another (*3*:133) prefers standardized tests to informal inventories, a second points out their limitations (*26*:246), while a third (*6*:135) suggests that both be used to obtain more accurate results about the actual reading ability of pupils.

What lessons can we learn from the foregoing? Might I suggest that we have some evidence to support the view that suitable informal reading tests will yield results which will enable use to more adequately provide reading instruction for those who need it badly. This recommendation does not preclude the use of standardized reading tests for evaluating the reading of poor readers. It merely underscores other possibilities available to us as we work with children who require special attention.

Organization

One real problem schools face is their inability to provide special help in reading to all pupils who require it. They simply do not have sufficient staff to offer what many reading people feel these pupils need—individual instruction. Is it possible to offer effective group instruction and thereby reach more children?

Lovell and others (*18*:66-71) in a follow-up study with 136 pupils, all of whom received remedial instruction for at least three months, found small group remedial help as effective as individual instruction.

Delacato and Delacato (*7*:142-49) provided group instruction for children with reading problems who previously had been tutored individually but unsuccessfully. They found that the children's attitude and reading improved and attributed these gains to the influence of group interaction.

Galotto (*11*) found no significant differences in results obtained by pupils who received individual or group remedial reading instruction.

Over a six-month period, Dempsey (*8*) compared the reading progress of 10 eleven- and twelve-year-old pupils—5 whom she taught individually and 5 who worked in a group. She reported that on no test, standardized or informal, did one group score significantly over the other. Both groups of pupils made considerable gains in reading growth. She concluded that it is possible to group retarded readers who read on similar levels and have common reading problems.

Uncontrolled studies by others (*15*:230-39), (*25*:144-45), (*27*:342-43) further demonstrate the efficacy of providing group instruction in remedial reading.

The results of these studies seem to confirm the views of some reading specialists that group instruction has psychological advantages which equal the benefits derived from individual instruction. Furthermore, group instruction makes it possible for the teacher to reach many more pupils than he would otherwise be able to. Thus, classroom teachers can group their children for remedial instruction with confidence and hope to achieve results at least equal to those gained from individual teaching.

Methods and Materials

What types of reading materials should be used to teach children with reading difficulties? Should materials for remedial reading be consistent with the interests and maturity levels of the children? The research to answer these questions is meager, but some tentative answers might be found in a study which sought to compare the usefulness of basal readers and high-interest, low-vocabulary trade books in a reading program for poor readers. Harris (*13*) randomly placed 40 fourth, fifth and sixth grade pupils into one of two groups and then subdivided each group so that the four groups received equal amounts of instructional time. After 57 periods of instruction, she did not find any significant difference between the two major groups in silent or oral reading achievement. She concluded that basal readers are as effective as high-interest materials for teaching poor readers.

The implications of this study are clear. We know that the reading interests of poor readers are no different from those of good readers. Use materials in whose content poor readers are interested. However, we should not assume that all pupils reject materials originally designed for younger children. These materials can be used when more desirable ones are unavailable, provided teachers and children understand the purposes to which they are being put.

In a different but somewhat related study, Sartain (*21*:445-51) sought to determine whether third grade poor and good readers profit from workbook exercises. Neither the poor nor good readers reached a level of achievement in word recognition and comprehension significantly different from that of control groups. Some groups, however, did better than others. The investigators concluded that the learning environment of the classes rather than the materials accounted for any gains in reading.

One implication might be drawn from this study. It is not so much the materials you use with poor readers that counts; it is more what you do with the materials that makes the difference.

There has been a series of investigations whose results are mixed. These sought to determine the extent to which poor readers could improve their reading ability with instruction and/or forms of therapy. Studies such as those by Fisher (*10:*354-60), Lipton (*16:* 330-34), and Studholme (*28:*528-30) suggest that a reduction in the anxiety levels of these children facilitates learning. It seems quite clear that poor readers are more likely to prosper in classrooms with patient and understanding teachers than with critical and punishing teachers. A healthy learning climate helps to raise low self-concept, an obstacle to learning. Feelings of success can be generated by firm but sympathetic treatment as well as by growth in reading.

Other clues to teaching procedures are found in studies by Mills (*20:*221-25) and Roberts and Coleman (*21:*445-51). The former sought to determine which method—sight, phonic or kinesthetic—is best to employ for overcoming word recognition weaknesses in third grade retarded readers. The latter sought to determine which group—normal or retarded reader—had superior visual perception and what method—visual or kinesthetic—produced better results with the groups. They found that poor readers were weaker in visual perception and improved their recognition ability when taught by visual and kinesthetic means.

We might conclude from the results of these studies that no one method of teaching word recognition skills should be relied upon with poor readers. Some learn better with one mode than another. Our chances for success are improved under conditions which give learners as many cues as possible.

The studies by Scott (*23*) and Farrelly (*9*) with second grade children who were poor readers produced results which indicated that a carefully planned and systematic remedial program could significantly raise the reading levels of such children. These studies suggest not only the desirability of instruction geared to learning levels, but also the wisdom of providing help in overcoming word recognition weaknesses *early* in a pupil's school career. Too many remedial programs pick up poor readers in the middle grades—typically with disappointing results.

Many specialists in reading as well as in other areas of learning have suggested that meaningful learning is preferred to rote learning. A study by Catterson (*5*) sought to determine the validity of this recommendation. She compared the inductive method (practice in recognizing words in meaningful contexts) with the deductive method (recognizing words by applying rules). She found that her poor readers learned to recognize words better in meaningful settings than from rules. This finding supports the belief that we should help poor readers understand the processes of word attack rather than require them to memorize rules which can be forgotten easily. Meaningful learning is more efficient and lasting than meaningless learning.

Does word form have any effect on recognition? The answer to this question has significance in teaching poor readers with word recognition difficulties. Byrne (*4:*134-36) presented unknown words in four forms: manuscript writing, lower case typed, cursive writing, and upper case typed. He found that good readers did equally well with each form. However, the poor readers missed more words that were presented in the upper case form. This form contains fewer cues than the others. The results suggest that poor readers with word recognition difficulties might benefit from exposure to word forms that approximate those found in books. The teacher can use this form on the chalkboard and in other writing to which these readers are exposed.

Summary

As we noted at the outset, we do not have definitive results from research to guide us in helping children with reading difficulties overcome their weaknesses. More and better research in reading and learning will yield information in which we can place confidence. Meanwhile, we have developed some principles that are outgrowths of theoretical models and experience. In addition, we have made some beginning efforts in research to determine if we should support these beliefs and practices. Until we obtain more conclusive data, it seems wise to use our present knowledge to help children become better readers.

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5. Remedial Studies at the Secondary Level

A REVIEW OF THE LITERATURE shows a dearth of published remedial reading research studies at the secondary level. This is perhaps not surprising since basic reading research has important implications not only for developmental reading but also for teaching in secondary corrective or remedial reading programs.

Lack of Experiential Background

Chief among the weaknesses which must be dealt with and corrected in remedial reading programs at the secondary level is the lack of an adequate experience background. A limited or impoverished fund of first-hand knowledge of the world around them results in the inability of students so limited to develop the concepts necessary for the simplest level of comprehension. Individuals so limited cannot find and understand the essential relationships in reading material at the level of the sentence, paragraph, chapter, and book even if they master word recognition techniques. They cannot see basic relationships because they do not have the prerequisite experience which makes them meaningful. For such pupils, concentration wholly on word analysis skills, vocabulary lists, and skill drills is meaningless and will at best result in empty verbalism. Children cannot be taught concepts; they must be helped to develop them out of their own experiences (*3*)—both direct and vicarious. And the richer the first-hand experience, the more useful the vicarious experience and the less likely it is to result in superficial understandings. Furthermore, the more direct the experience on which a concept is constructed, the greater will be the child's knowledge and understanding of the concept (*21:*275-85). In short, concept building depends on experience or, to be more precise, on the ability of the individuals to profit from experience (*16:*100-7). It cannot be acquired by merely meeting words in context (*20:*457-64).

What then, are the implications of these findings for sound practice in remedial reading instruction at the secondary level? First, every opportunity should be taken to provide the most direct experience possible in the areas which most immediately concern the youngsters in their personal lives and in their present school studies. A field trip—for example, a trip to the U.N.—which precedes study of a particular unit in social studies, can provide the background to make it meaningful. But first-hand experience is not always feasible, nor indeed even possible, in developing all needed concepts. The use of motion pictures (*7*:183-6) (*11*:116-35), flat pictures (*29*:232-41), three-dimensional pictures, maps (*26*:338-44), charts, diagrams, and other representations (*11*:116-35), can aid in concept development. In addition, oral language, dramatization, demonstration, and experimentation all have a place in concept-building.

What research tells us, then, is that in order to teach reading effectively, the teacher must be actively concerned with building students' experience background, and should be aware of the usefulness of many visual and auditory aids to accomplish this end. In remedial reading classes, this aspect of the Directed Reading Activity—the building of concepts and understandings necessary to a comprehension of the particular selection to be read—is absolutely essential. The teacher's ingenuity, enthusiasm, and resourcefulness in this fundamental aspect of teaching remedial reading will largely determine his or her success. The ability to clarify, to illustrate, to supply meaning, is the key to interest and to understanding and hence to reading improvement. But building the background experience which motivates, fires the students' interest, and gives meaning to a reading or content area lesson, takes time as well as creativity and ingenuity. It takes teacher time in preparation and student time in the classroom. Many conscientious teachers who clearly recognize the futility of attempting to teach the required syllabus would be willing to spend the extra time needed for preparation. The problem, however, is that they feel bound to try to cover the material in its required amount and form. These teachers know that their traditional approach is useless, but they are constrained by departmental or state requirements. What they most need is the courage to abandon judiciously their meaningless exercises in empty verbalism and to substitute meaningful activities in building the experience necessary to making the reading meaningful. They will find that if they make haste slowly in their initiat lessons, they will be able to progress more rapidly later without sacrificing understanding and interest.

Linguistic Factors in the English Language

For many remedial students, the building of a background of concepts and experience must be accompanied by specific skill development. Many secondary pupils have not yet mastered the fundamental word recognition skills necessary to smooth, fluent reading and understanding. The decoding process in English is more complex and difficult than it is in many languages which are more phonemic. Hence the English-speaking child has an additional handicap.

Studies by Downing (*9*:166-77) (*8*:69-76) in England, and Stoffietti (*24*:63-84) in this country suggest that for English-speaking children the language code itself may be one of the basic contributing factors to reading disability. Soffietti illustrates the inconsistencies in the relationships of phonemes and graphemes by listing some 18 different spellings for the long *u* sound. Downing then enlarges this list by adding the corresponding alternate upper case graphemes to the lower case representations. Downing notes that although all the words of the English language may be satisfactorily analyzed in some 40-43 phonemes, there are over 2000 different ways of representing these basic units of speech sounds when we take into account capitals and script characters as well as lower case letters.

Such linguistic studies have resulted in the current experiments with I.T.A.*, the initial teaching alphabet or augmented Roman alphabet, devised by Sir James Pitman to ascertain whether or not the use of a consistent alphabetic medium could reduce reading failure in the initial stages of reading. Since experience shows that substantial numbers of junior and senior high school disabled readers have word analysis difficulties which have persisted beyond the elementary grades, it seemed possible that the use of I.T.A. as a remediable tool at these upper levels might help to accelerate the mastery of basic word analysis skills and hence materially aid the remedial process.

In order to test these implications, an experimental study was conducted last year at Uniondale, N. Y., for secondary students with severe reading problems. Materials at the students' interest levels were transliterated from the traditional orthography to I.T.A. In this study it was found that the pupils mastered the new code in a much shorter time than had been anticipated. The greater consistency of sound and written symbols enabled them to read materials much closer to their grade level and the complete break with the medium associated with failure resulted in a positive psychological climate that made accelerated learning possible. In short, I.T.A. appeared to have both therapeutic and corrective value and to provide another approach to the corrective treatment of reading disabilities at the secondary level. Both teachers' and students' reactions to the experiment were generally favorable. The teachers found that students using I.T.A. looked carefully at words and persisted until they had worked them out. The same children had heretofore regularly given up when confronted by the same words in traditional orthography. The challenge and change of the new medium kept them working on words systematically and thoroughly.

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*U. S. Office of Education sponsored studies at Lehigh University ("Reading Achievement of Children Taught by I.T.A. and T.O.") and Hofstra University ("Effectiveness of Three Basal Reading Systems").

Student reaction was one of heightened interest and participation, and appreciation for their new-found reading power. Some reported that reading seemed easier, one that he now read the sports page of the newspaper every night, and another that he took books home to study (*14*).

Vocabulary Deficiencies

Word recognition skill, although a prerequisite to good reading, does not guarantee it. Word calling or decoding is possible without word understanding. Understanding requires a wide vocabulary of verbal concepts based on experience.

Building vocabulary is then a most important aspect of remedial and corrective reading at the secondary level. Indeed it is basic to any real reading comprehension and interpretation. "In all probability, an inadequate vocabulary is the greatest single cause for failure to read with comprehension in either general or technical fields" (*6*).

What does research tell us about increasing vocabulary? It tells us that vocabulary building is based on two kinds of experience (*21:*275-85). The first is experience with the raw materials of the concepts for which given words are the symbols, i.e., first-hand experience with concrete objects and with processes. The second, to which reading teachers usually address themselves, is experience with the given word itself—experience in hearing it, speaking it, reading it, and writing it, and in the case of a kinesthetic and tactile approach, tracing it by running two fingers over a copy written in blackboard size script. Experience with the raw materials of the concept develops the concept, while experience with the word relates the word and the concept in the individual's mind. Reading requires not only a background of concepts but that these concepts be associated with verbal symbols known and understood by the reader.

What are some of the things research suggests about the most effective methods for developing vocabulary? First, it suggests that intensive vocabulary training using specific words leads to greater gains in general vocabulary than does an incidental method (*27*), and that intensive training also leads to greater gain in knowledge of specific words (*28*). If a direct approach is more fruitful, that is "one in which lists of words or sentences containing words are studied deliberately for the development of word power. . . ." (*17:*477) then the question arises as to what words should be taught directly. The answer lies in using words the students need to understand the textbooks, words they have an opportunity to use, and words from carefully compiled lists such as the Thorndike & Lorge (*25*), the Kyte (*13:*231-34) general vocabulary list of 663 words compiled as a core vocabulary, the Cole (*6*) technical vocabulary designed for high school subjects, and Brown's (*5*) list of words containing selected, frequently used prefixes, suffixes, and roots.

Second, it indicates that studying words in context and using as many different settings for them as possible helps to fix them in mind and clarify and sharpen their meaning, while simply writing definitions of words from a list out of context is of little value (*1:*11-19). McCullough (*15:*225-34) pointed out that students must be helped to understand context clues and suggested teaching experience clues, comparison-contrast clues, synonym clues, summary clues, definition clues, clues of familiar expressions, and word order clues.

Third, pupils in grades VIII-XII who have the meanings of words explained by their teachers, or by means of glossaries, learn more than those who look the words up in dictionaries (*22:*1-6). Serra (*21:*275-85) concluded from a survey of research that a method having the teacher supply the definition, explain it, and illustrate it, is superior to one in which the child uses the dictionary for himself. In general, the use of the dictionary has not proved an effective method of teaching vocabulary. More effective are the use of direct experience (*2*), experiences with still pictures (*7:*183-86), and films (*19:*617-23), and discussion to clarify meaning (*10*).

Need for Comprehension Skills

Reading skills beyond word recognition and word meaning must also be given specific attention. In the I.T.A. Uniondale Study mentioned previously, the reading teachers found that mastery of the decoding process could be taught in as little as three to four months to the older boys and girls. But because these youngsters had had so little experience with secondary level materials, they had not developed the comprehension skills necessary to the adequate interpretation of these materials which they were now able to decode fluently.

What type of comprehension skills should be emphasized in teaching remedial reading at the secondary level? Dr. Olive Niles feels that there are only a few really basic or fundamental reading skills and that if teachers would concentrate on these, fewer skills would need to be taught and the time and effort spent on teaching them would produce better results. She distinguishes three general skills. The first is finding and understanding the various relationships of ideas, such as time relationships, comparison-contrast relationships, and cause-effect relationships. The second is the ability to adjust reading according to the reader's conscious purpose. The third is the ability to make full use of previous learnings in interpreting present reading (*18*:62-73).

There is ample research evidence to support the view that different reading purposes require adjustments in the reader's use of specific skills. Dr. Nila B. Smith identified some 15 reading purposes used in different subject-matter fields (*23*:579-89), while Dr. Jack A. Holmes distinguishes reading purposes in terms of the two general reading purposes: reading to gain a general knowledge of a subject, which can be done by speeded reading, and achieving a *working knowledge* of a subject, or reading for both comprehension and power, i.e., "a technical mastery of scientific material or a high appreciation for the music and sense of great literature" (*12*).

A key technique in teaching students to see relationships, to set purposes for reading, and to use past learning experience for interpreting their reading is "the art of questioning." "Questioning," writes Dr. Morton Botel, "is potentially your most important tool for helping students to understand and to interpret what they read. If the questions you pose are thought-provoking and stimulating, your students will grow in their ability to think critically about what they read. On the other hand, if your questions are limited to facts and small details, thinking and appreciation may be shallow" (*4*).

We may conclude then, that reading specialists concerned with corrective and remedial programs at the secondary level may gain much insight and direction from both basic and applied reading research. Practice without research is quite likely to be faulty and ineffective. Research without practice is useless except to satisfy the researcher. But practice based on research will lead to development of fewer reading problems and more effective and rapid correction of existing reading problems at all levels.

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COMBINING RESEARCH RESULTS AND
GOOD PRACTICE

ADMINISTRATORS AND READING INSTRUCTION

INTRODUCTION

THIS SECTION represents the thinking of five people who attempted to view the roles of administrators in relation to reading programs. Although there is a paucity of research evidence directly related to the activities of administrators and their involvements in reading programs, research results have been used when possible to pinpoint needs or to influence good practice. No attempt is made to cover all topics that might be related to the roles of the administrator and reading programs. Each of the five writers chose areas of concern to himself and explored these; this section is the result of such exploration. It is intended that this section serve as a starting point for much more extensive and intensive investigation and treatment; a preconvention institute is being planned for next year and an IRA committee has started to plan a volume in depth on the topic.

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1. Combining Research and Practice

SCHOOLS ARE BUILT FOR CHILDREN. It is the children who are being educated in the schools. It is the teachers who should be most familiar with the needs of the children. It is they who should have the widest concepts of research and its results, to help them to meet the needs of children and so to realize the purpose of the entire educational process. Well informed and thoughtful teachers should be in the best position to visualize, both in broad prospect and in specific detail, the ways of using the results of educational research to best advantage. It becomes the administrator's task to coordinate the diverse ideas presented to him by staff members and others, and to combine them with all the related research of which he has knowledge in such a way that the school program will be educationally sound and useful.

The extent to which teachers and building principals can evolve and transmit constructive ideas depends largely on the attitude and the ability of the superintendent or supervising principal as a leader and coordinator. One of the most challenging problems in realizing the potential of a school staff in converting research results into good practice is to develop the team approach to planning. If the aim in education is to produce the type of individuals whose flexibility enables them to solve new problems quickly, then the principals, the heads of departments, and the teachers must be in a position to have knowledge of the way research can be applied in classroom practices that will prepare students who are up-to-date, self-confident, and have the ability to think for themselves.

It must be realized that no department functions by itself, but rather exists in relation to all other departments; the work of each teacher in each department has a direct relationship to the successful development of a particular type of individual capable of carrying out particular responsibilities. A reading program that is planned in small, separate compartments, with the heads of departments and the principals the only educators consulted, will lack the unity and purpose it must have to achieve the overall aim of education which should underlie every good school program. Therefore, one of the first steps in developing a system capable of combining research results with good school practice should be to involve the entire school staff as a team in a careful analysis of the aims of education, and in a study of the program of the school; the study should be made in terms of the effectiveness of the program in meeting the needs of the children as well as the needs of the community in which the school is situated.

Teachers and building principals must constantly remind supervising principals or superintendents and themselves that education is primarily a personal thing. Education has to do with persons; and the subjects, the knowledge, and the skills taught in our schools are the media of education, not the end. For the real teacher, it is the personal growth of the individual child which is the means of determining the right aims of the total educational program which will help the individual meet the needs of our changing, developing society. For the researcher, the plan and design of his research should be governed by a desire to help develop a school program that will enable the teacher to achieve his aim of meeting the needs of the individual and the community. When wise school administrators move to assure that the ideas of school teachers are made clear to the people who do the pure research in reading, then both the real teacher and the real administrator become true educators of children.

Certain major difficulties appear to have prevented us from translating the soundest research results into good practice.

First, we have not been able to state our educational aims in clear, simple language, understandable to the administrator and the teacher. Only if our aims in education can be clearly defined and sincerely stated can we do something about using the results of educational research in reading to help us achieve our overall aims in education. If not, some of our research will simply be a cumbersome device to prove what is obvious, initiated and developed by a collection of people exchanging hunches based on expediencies and uninspired guesswork. In such a situation we will find that those involved have dissipated their energies and the taxpayers' money learning to do something well that should never have been done in the first place.

Second, we have not made sufficient effort to apply wisely the results of research that we now have at our disposal. Surely we have seen enough of the misuse of the results of research in the physical sciences to give us fair warning. The misuse of unsoundly based educational opinion can be even more devastating to society than our most deadly bombs.

What steps can bring about a better relationship between educational research in reading and satisfactory educational development?

1] *We must clear up our aims.* This can be done if superintendents and principals develop the team approach and give teachers and all those concerned an opportunity to sort out the constants and variables in our educational aims and to define in clear understandable terms the purpose of our entire school program. To clarify aims and establish an accepted common philosophy require careful planning.

2] *We must learn to ask the right questions and to seek the right answers by the right kind of research.* Do we really desire to prepare our children to live creatively in our complex technical community? Do we desire to develop nimble minds capable of making the adjustments inevitably needed in a fast-moving society or do we want to train mechanical men? If these ideas are reflected in the questions we ask about education, then the results of the research based on the questions will lead naturally to less dependence on formal textbooks; there will develop a need for a really free public educational system where each school will be well equipped with libraries and supplementary materials to enable the school people to apply research in a meaningful way.

3] *We must learn to translate what we learn about the needs of the individual child and the modern community into practical techniques and materials which teachers can actually use.* An example of the way the results of research can be combined and translated into good educational practice is to be found in agriculture, where pure research is done in the laboratories by the specialists in research. The results of the experimentation are tried out in experimental stations. This tryout provides the researcher with an opportunity to explain the purpose of the experiment, to present the results, and to define their impact on agriculture to a small group of specialists who have the knowledge and skills to understand and apply what has been discovered. The people in the experimental stations then transmit their knowledge to the farmer, who is the practitioner, and it is here that the results of research translate themselves into increased production and better products. Subsequently the ideas of the farmers are returned to the experimental station and the experimental station in turn transmits these ideas to the laboratories where the pure research is done.

This type of procedure can be applied to a school system where administrators are given the time to meet with the people who are doing the research in the universities. These are the people who are trained to understand the language of the researcher and translate it into practical language of the principal and teacher. The principal and the teacher then must be given time to meet with the administrators and interpret research results in light of the overall accepted educational aims of the system. Teachers must have time to apply the results, record their opinions, and transmit them to the administrators so that they in turn can transmit generalized opinions to the researchers in the university departments.

If we are to combine our research results successfully with good educational practice, our system must be coordinated and unified, and must take full advantage of the team approach to education.

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2. The Role of the School Principal

IF A TEAM APPROCH IS TO BE EMPLOYED, and teachers as well as administrators are to be aware of the research results to be combined with good practice, many kinds of changes must take place.

In the Harvard report on the status of reading in the elementary schools, the investigators contended that "present day reading programs were mediocre at best and not currently designed to produce a future society of *mature* readers" (*1*:2).

When such indictments are put forth, the finger of blame usually is directed at the classroom teacher. Yet, when we examine the meager amount of reading instruction at the college level and note the limited amount of guidance provided after the teacher is assigned to the classroom, it is surprising that the teacher performs as well as he does. At the college where this particular writer is employed, reading is taught with three other subjects (language arts, social studies, and mathematics) in a practicum involving both theoretical presentation and practical application in a laboratory setting. The student receives five semester credits for this course, or the equivalent of one and one quarter credits per subject. A variation of this pattern can be found in many teacher preparatory colleges throughout the United States, despite the fact that reading authorities recommend "that the class time devoted to reading instruction, whether taught as a separate subject or integrated with the language arts, be equivalent to at least three semester hours' credit" (*3*:144). It is doubtful, however, that this recommendation will ever be implemented as long as state certifying agencies and college administrators hold to the concept that four years is sufficient time to "turn out" the liberally educated and vocationally trained graduate. On the other hand, even with improvements in baccalaureate education we cannot expect the colleges to assume *total* responsibility for the professional education of the teacher. As Hicks points out:

> It is a mistake to assume that all the necessary competencies for successful teaching can be developed through an exemplary program of teacher education at the preservice level. It is increasingly evident that some of the techniques and understanding can best be learned through experience in the classroom (*17*:143).

So it is that we turn our attention to the local school system and to the individual or individuals who must assume the responsibility for providing the necessary guidance and education for the beginning teacher as well as a program of "reeducation" for many other teachers.

An historical overview of administrative and supervisory roles reveals that the responsibility for improving elementary school reading programs rested initially with the school superintendent and the school board. By the mid-1920's, however, when school enrollment had increased because of compulsory school laws and rapid urbanization, it became apparent that neither the school board nor the superintendent was in a position to cope with instructional improvement that had become a necessity. The administrative head of the elementary school was an unlikely person to direct the instructional program since frequently he was appointed on a political basis and since it was not generally recognized that elementary school principals were equipped to exercise powers of leadership in their own schools. Therefore, the need for specialized personnel to assist the principal was recognized and the position of "general supervisor" came into being; the responsibility for assisting classroom teachers to improve their teaching effectiveness was placed almost exclusively in their hands.

But the growth of the school system which precipitated the appointment of supervisors in the '20's was more than matched by the enrollment expansion in the '40's and '50's. As a result it became physically impractical for central office personnel to provide adequate guidance for the vast numbers of teachers that school systems found it necessary to employ. Out of this growth pattern the role of the elementary school principal evolved, changing from one of relative insignificance to one of paramount importance.

But although the role of the principal has emerged as one of major significance, there is certain irony in this development. Writers who point out that elementary school principals are now in the position of being the instructional leaders are quick to add that in many instances they have not yet assumed this responsibility. Cramer underscores this point when he says:

> Despite what might be termed tacit agreement that the real functions of the elementary school principals are the improvement of instruction, analysis of how the elementary school principals spend their time has revealed that the major portion of their activity is by no means devoted to the improvement of classroom teaching (9:vii).

Similarly, a study by Dean revealed that elementary principals spent more time on clerical chores and school management than on instructional improvement, which prompted the author to conclude that "principals are evidently doing more effective work in routine and operational procedures" (*10*:101). A comparison of two surveys, one conducted in 1928 and the other in 1958, revealed that elementary school principals spent four percent less time on instructional improvement in 1958 than did their counterparts in 1928 (*14*:181-6). The implication to be drawn from a review of these studies is abundantly clear: although the central office has transferred considerable authority to the elementary principal in the area of curriculum improvement, the latter spends no more time on this function than he did in the past.

Several theories are available to explain this situation. One is that the central office has not relieved the principal of enabling responsibilities while expecting him to assume more of the local responsibilities. Another is that many elementary school principals feel neither competent nor comfortable in fulfilling the responsibilities for improving the instructional program.

Such feelings of incompetence are not difficult to understand, especially as they relate to the improvement of reading programs. Historically, elementary school principals throughout the nation have been chosen from middle and upper grade faculties where they received only minimal insight into the foundations of reading instruction. Accordingly these principals have been unwilling and/or unable to participate effectively in the in-service education of teachers. Indeed it is not unusual to find that many principals possess less understanding of the components of reading instruction than the teachers whom they are expected to guide.

An illustration of this rather sad commentary on education can be found in the number of elementary school principals who applied for the NDEA Institutes in Reading held at Rhode Island College during the summers of 1965 and 1966. Although application for admission to the Institute was restricted to supervising elementary school principals who had taken no more than one course in reading instruction, the screening committee received over 500 eligible applications. A majority of these applicants frankly admitted that they had never had a course in reading.

The question then arises: what effect do administrative weaknesses have on the reading program? The Harvard report provides us with one answer:

> . . . In those schools where principals admitted their lack of understanding of reading (especially men when queried about the primary grades), where no effort was made to help beginning teachers or those suffering from professional atrophy, and where the principal devoted his time almost exclusively to office details the teaching methods used by most teachers were inferior (*1*:205).

On a more positive note the report said that, "In those schools where the principal was knowledgeable about the reading program, where he was aware of the strengths and weaknesses of teachers, and where he devoted a major portion of this time to the improvement of the reading program, instruction was good" (*1*:205).

On the basis of the foregoing it appears that changes must take place in existing reading programs and that elementary school prinicpals are in the most strategic position to undertake such changes. Whether present day principals are qualified to fill the desired requirements of their position either by temperament, experience, or training is doubtful—a situation that calls for alterations in the education and election of principal administrators.

On the other hand, if we project ourselves into the millenium when all principals will be relieved of clerical responsibilities and will be sufficiently knowledgeable so that they can concern themselves primarily with the improvement of reading and related subjects, our attention is focused less on the leader and more on the way he leads. Specifically we must be concerned with the most efficacious ways of making changes in our reading programs. Three such approaches are worth mentioning: 1] the directive approach; 2] the non-directive approach; and 3] the facilitating approach.

Historically, the predominant method utilized to effect change has been the directive or authoritarian approach whereby teachers are told what to teach and how to teach it. Control has been exercised through the use of curriculum guides or teachers' manuals, both of which specify the content of reading instruction appropiate at a given grade level. When changes in this program are deemed essential, either as an outgrowth of internal pressures (e.g., brought by the superintendent to improve children's scores on reading achievement tests) or external pressure (e.g., brought by the parents to emphasize more formal reading in the kindergarten), teachers are directed to initiate changes in the content and/or conduct of their reading instruction and advised of the methods to be used without taking part in planning the proposed action.

An example of the above can be cited in a survey conducted by Bennie in which it was revealed that in schools where enrollment does not exceed 500 students more than half of the teachers sampled indicated that they had no voice in constructing the curriculum. In schools where the enrollment exceeded 500 students, two fifths of the teachers reported they did not participate in curriculum improvement programs (*4*:56-7).

Used as a method to implement change in instructional reading programs, the directive approach can be challenged on several grounds. In its purest form it is a contradiction of democratic principles. From a moral and ethical standpoint there is a denial of the worth of the individual if the teacher is expected to change her behavior without being permitted a voice in the matter. As a result of these weaknesses the most important defects of the directive approach emerge: it has not brought about satisfactory improvement in existing reading programs; or, when certain improvements have occurred as a result of administrative fiat, such changes have frequently become terminal points that have resisted further change.

In contradistinction to the authoritarian approach is the non-directive method in which the administrator provides little, if any, guidance to the teaching staff. If teachers want to change their reading program, they are free to do so. In other instances teachers are expected to correct prevailing weaknesses without being told how to accomplish the desired improvements and with no assistance from administrative personnel.

In the area of reading instruction it is doubtful if any improvement can take place under these conditions. Teaching children how to read is a complicated process based on the sequential development of skills in which the effectiveness of the total reading program depends to a great degree on the element of instructional continuity, and on the extent of cooperation that exists among the teachers. Therefore, where teachers are permitted or encouraged to formulate their own reading policies and where there is no centralization of authority, no mechanism for cooperation among teachers, and no method for cooperative formulation of procedures, it is difficult to see how any effective reading program can develop.

Whether or not the abdication of authority on the part of the administrator is more detrimental to teacher effectiveness than the directive approach remains a moot question, however, since much depends on the individual personality of the teacher. At any rate, neither method has successfully fulfilled the fundamental objective of administration—improvement of the instructional program. Weaknesses unique to both have been mentioned. In addition to these, both methods have a common limitation; the lack of administrative foresight in recognizing that improved instruction must, to some extent, focus on the behavioral changes in the teachers involved, and in their beliefs, knowledge, desires, attitudes, and skills.

A third approach to change is one based on the concept that changes in reading programs or in other areas of the curriculum require a type of social change on the part of the teachers involved, not merely changes on paper. For want of a better name it can be referred to as the facilitating approach. The underlying theory of the approach is that understanding of the contemplated changes on the part of the teacher must precede action and that effective change can be accomplished only when teachers have studied, evaluated, and accepted for themselves the proposed programs. For the most part this involves a process of re-education in which the principal must clarify new techniques, new philosophy, and new procedures, while assisting faculty to discover for themselves the value of the suggested revisions. Toward this goal a number of techniques are currently being used. Most of these can be categorized under the term, "in-service education," and they include action research, workshops, practicums, and seminars.

The degree that any such efforts do, in fact, result in improved reading programs, depends on the role played by the school principal. Essentially he must serve largely as an organizer of teacher groups. Acting as a resource person to them, he must encourage and stimulate teachers to develop better meanings, convictions, and motives through their own efforts to define and solve a variety of problems. The principal thus becomes more of a catalyst and facilitator than a directing genius, and his major skills are devoted to working effectively with groups in an effort to help teachers re-examine their commitments, their objectives, and their manner of teaching. To fulfill this role successfully calls for unusual characteristics, for the principal must be knowledgeable about human behavior, group dynamics, public relations, and management.

Aside from performing his function of involving teachers in general curriculum improvement, the principal must be acquainted with research relating to current theory and practice concerning the teaching of reading if he is to assist his staff in the development of a program of improved reading instruction or of an appropriate program of instruction for the immediate future. He must know what reading involves, what the objectives of the reading program should be, how reading instruction differs at various grade levels, what methodological techniques are most appropriate for children with varying characteristics and abilities, and what materials will produce the desired results for different children.

To a large degree, then, the principal determines the effectiveness of reading programs. His understanding of the philosophy and psychology of reading is conveyed to all members of this staff—in addition to his responsibility for directing in-service programs that will lead to a modification of existing notions regarding their own practices and those of their colleagues.

Of the three approaches mentioned, the facilitating approach looms as the most desirable if we look for the teacher to change his instructional techniques in *subsequent* days and years. If we expect merely changes on paper as opposed to actual changes in the individual, either the directive or non-directive approach will normally achieve this objective.

It would be a fallacy, however, to say that attributes of the directive or non-directive approach cannot be successfully employed by the administrator. Because teachers vary in their emotional, environmental, and intellectual make-up, they cannot be expected to behave according to a uniform personality stereotype. Therefore, in his efforts to motivate his staff to the extent that each will realize his teaching potential, the principal must know when to delegate responsibility, when to coerce, and when to assist.

Again we must look forward to the millenium when elementary school principals will be qualified to exercise the appropriate judgment that will lead to the improvement of teacher effectiveness. For if we are to improve reading instruction in the years ahead we must heed the observation made by Cubberley many years ago, when he said, "As the principal, so goes the school." In this instance we might say, "As the principal, so goes the reading program."

MILLARD BLACK

LOS ANGELES CITY SCHOOL SYSTEMS

3. Specific Administrative Factors

IF THE ADMINISTRATOR does become an active team member in planning and implementing a reading program, he will be concerned with specific administrative plans to be used in organizing the program. Three factors of particular interest to administrators are non-graded plans, compartmental vs. departmental organization, and scheduling the reading program.

Non-graded Primary

Probably the most widely known non-graded primary program has been developed in St. Louis, although many other communities have reported its use. Statements of the philosophy which underlies such an organization generally parallel this from St. Louis:

> . . . In this program, pupils in the primary school will no longer be grouped by grades, either on report cards or on the room-grade sheets. . . . When pupils enter the kindergarten they already vary widely in their capacity to learn, in their control over the important language arts skills, and in the many other factors of readiness for learning to read, write, spell, and deal with number concepts . . . (*24*:1).

Younger kindergarten pupils are classified as K-1's and the older ones as K-2's. Provision is made for moving more mature K-2's into the formal learning program, which is designated as an A-1 group; slower maturing pupils continue what is essentially a readiness program. When any pupil is ready for a formal learning program, the guide describes the movement of a pupil when he is ready for a formal teaching program:

> . . . he will begin it as an A-2 pupil and proceed with his learning as rapidly as he can through the successive stages of growth in the primary school without grade classification.
>
> The B-1, B-2, and C levels correspond to stages of growth in skill which

> are symbolized by the pre-primer, primer, and first reader textbooks. Each of these textbook classifications represent a stage of growth in reading skill. As pupils finish working with each of these texts, they are tested as objectively as possible to determine their readiness for the next stage of learning . . . (*24*:1).

Movement among the eight levels, which correspond to the traditional reader levels of readiness through 3^2, is at the pupil's own pace. Provision is made for continued readiness activities for those pupils who, after a year in kindergarten, are not ready for a formal reading program. Guidelines for parent orientation and reporting, always a major factor in the inauguration of any new program, also are provided for administrators. An explanatory booklet of the new program was developed for parents. New report cards, which had to be developed for this departure from earlier practice, contained an explanation of the levels. Principals were advised to help parents understand ". . . that pupils will thus have no occasion to 'fail' and the question of whether a pupil is 'promoted' or not will have no relevance (*24*:1).

Has St. Louis developed a panacea? Does the non-graded primary help all children achieve the skills necessary to move into fourth-grade textbooks? As with every such question, the answer is "no." McDonald reported at the 1964 IRA Convention on another St. Louis innovation called "Room of Twenty" (*20*:52-3). This is, she said, "a type of school organization for reading improvement. It is so named because twenty reading retardees are assigned to the room." Teachers selected have had reading clinic training and are not restricted to a time allotment schedule for various curricular areas. Pupils are transferred to Rooms of Twenty who do not master the skills defined in the ungraded primary program after progressing through three years of such instruction.

> About one-half of the children of the Room of Twenty are ready after a semester to return to a regular room, equipped to handle fourth-grade material with success. It will take another semester for the remaining half (*20*:52-3).

Most descriptions of non-graded units indicate that pupils are moved on after having spent a maximum of four years in the primary rooms (*11*:269-77).

Administratively, most of the problems of moving into a non-graded program (whether for slow readers or for the total primary program) appear to be those of changing teacher philosophy. If only the label is changed, nothing of significance will occur. The teacher must be helped to perceive that a non-graded program will permit him to:

1] do more creative teaching in line with the realities of pupil potential and achievement;
2] not be concerned about encroaching on the material or responsibility of the grade next above him;
3] provide additional practice or instruction at a particular skill level without the concerns normally associated with retention;
4] more appropriately group for instruction in various subject areas, since skills often vary from subject to subject.

Greater responsibility is placed upon the teacher in certain areas, as:

1] more efficient collection and analysis of data which will help to determine progress and placement;
2] accountability for pupil success.

Departmentalizing Reading Instruction in the Primary Grades

Should responsibility for teaching reading and the other language arts be assigned to one highly knowledgeable and skilled person? The mere consideration of such an idea is cause for many, if not most, early childhood education specialists to join Macduff in his cry to "Ring the alarum-bell. Murder and Treason!"

Although the content of the curriculum of the primary grades has been questioned and room arrangement and equipment have seen numerous changes, little research in departmentalization in the primary grades apparently has been done. The primary program has been envisioned as a logical extension of the home and the teacher as a mother surrogate.

A number of arguments are presented for maintaining the self-contained organization:

1] Sharing the responsibility for teaching the basic subjects would preclude a single person from the opportunity to assess the total development of the pupil. Many teachers and administrators who advance this theory, however, welcome other teachers in subjects such as art, music, and physical education because these require "special skills." One questions how much less skill is required to help a pupil learn to read than to learn to sing or to draw and paint.

2] Adapting to different teachers would deprive the pupil of an individual from whom he would derive security.

3] All classroom experiences should contribute concepts and labels to the reading-language program. In a departmentalized school or classroom, total awareness of the activities would not be possible.

4] Even semi-departmentalization, as a special reading teacher for the less able, is perceived as delimiting pupil growth. When pupils are removed from the classroom for a period of time they are deprived of interaction with the total group.

On the contrary, a number of arguments seem to support at least consideration and research into a departmentalized program.

1] The presence of large time blocks would permit departmentalization without restructuring the total primary program.

2] More knowledgeable teaching would result, since such a teacher would have responsibility only for the communication skills.

3] The Three-for-Two Kindergarten plan demonstrates the capability of the five-year old to adjust to various individuals. Under this plan, three teachers and three kindergarten classes share physical facilities designed for two groups. Teachers frequently exchange responsibilities, each contributing in his area of greatest competence. The same adaptability is observed in children in grades one, two, and three as they relate to parent volunteers, noon-duty aides, student teachers, nurses, and other factors.

4] Limited experience with team teaching in subjects other than reading indicates that pupils experience no inability to learn from different teachers and that there is no negative emotional result from the experience.

Teachers, when queried as to whether they would like a departmentalized organization, tended to respond, "No, but I would like a smaller group." Hansen concluded that the alternatives appeared to determine the teacher's decision (*15*).

The point at issue is, as McKim states, not one of tradition or emotion, but: ". . . possible patterns of classroom organization which will enable the teacher to be most helpful to pupils during the reading period" (*21*: 276).

Adapting Length of the Instructional Period to Learning Needs

This dimension of individual differences has received less acceptance than have such elements as materials, grouping for instruction, or even the curriculum itself. Attempts to adjust the amount of instruction to the learners' needs are observed both within the pattern of the individual classroom and within total school organization. Particularly in the upper grades, it is not uncommon for the highest reading group to employ some adaptation of an individualized reading program; thus is made available at least periodically a block of time which may be used with slower-moving groups (*19*). Advocates of individualized reading as the basis of instruction state that "hours (of teaching time) are saved when we do not teach what already is known or what the child is not yet ready to learn." This time is utilized to meet the identified needs of other learners (*22*:96).

Flexibility of grouping, essential to efficient instruction, permits the organization for a limited time of clusters or sub-groups with a common need. These pupils may receive intensive instruction in a particular reading skill for one or two periods, while the other members of the group(s) read independently or complete assigned practice material.

Some schools report the decrease in time allocated to some other subject area or areas; added to the reading period is the time thus obtained. This permits an increase in reading instruction, particularly for children who are reading markedly below grade level, without increasing the length of the school day.

Patterns of organization within the total school include staggered scheduling, homogeneous grouping, special classes, instruction in an extended school day, and the use of additional teachers.

Staggered schedules appear to provide a means of lowering class size without added capital expenditure or increased salary costs. Approximately one-half of the class, generally the poorer readers, arrive at school an hour earlier than the balance of the pupils, thus both the number in the reading class and the range in ability are reduced. Children who arrive in the first group go home an hour before the other children; opportunities are again provided for smaller and more homogeneous instructional groups. A direct gain from this practice should be increased attention to individual needs and additional time for discussion of what has been read.

Homogeneous grouping within classes, as well as homogeneously grouped classrooms, is possible at all levels. One unusually interesting experiment is one in which the most immature kindergarten pupils are selected for first-grade placement in a special room in which the total curriculum is designed to stimulate total language growth. Preliminary results are very encouraging (*8*).

Both in elementary and secondary schools the "remedial reading room" is common. Perhaps less ordinary are services planned for high school pupils "who are reading at or above their grade level and who wish to improve their skills of comprehension and critical thinking" (*18*:25).

Special Federal funds are frequently used to provide additional instruction at the close of the school day. While the number of hours of instruction varies, most programs offer remedial reading instruction of some type for those pupils whose need is greatest. Tutorial services by volunteer groups are another source of additional instruction where it is urgently needed.

Still another means of adjusting the length of instruction is the use of special reading teachers, often paid from special Federal or state funds, at all grade levels. Particularly in grades one, two, and three, these teachers may be used to assist the regular instructor by teaching one reading group. The regular teacher can then divide the total reading period among approximately two-thirds of the class. In the higher elementary grades and in the secondary schools such teachers customarily appear to teach remedial reading classes of the traditional type.

MILLARD BLACK and H. ALAN ROBINSON

4. Specialized Reading Personnel

A NUMBER OF SPECIALISTS are available to help administrators guide and implement the reading program. Smith reviews the development and characteristics of reading specialization in her revision of *American Reading Instruction* (25:415-19).

Reading Teachers

A number of school districts employ teachers with special training (and, unfortunately, in some cases without the training) to help pupils who are retarded in reading or who may need or desire some special emphasis on the process of reading. These teachers are often called remedial reading teachers and, occasionally, reading counselors. Many of these so-called specialists are today being asked to assume responsibilities for which they have had no training, and administrators must be particularly sensitive to giving adequate support and assistance. This is especially true when a remedial reading teacher is asked to write a proposal for a remedial program dependent on Federal funds and he must suddenly become an evaluator of materials, student needs, and staff competences as well as a director of the program planning for and utilizing allocated funds.

Administrators might want to write to the International Reading Association for the brochure, Minimum Standards for Professional Training of Reading Specialists, which outlines bare essentials related to the teaching of reading and little related to the role of program director.

Reading Consultants

Reading consultants (or reading coordinators or reading supervisors) are usually more adequately trained as specialists who cannot only teach reading, but whose chief responsibilities lie in the area of in-service training and curriculum work in reading. These specialists are normally better prepared to guide programs, often directing the efforts of reading teachers. The book by Robinson and Rauch describes the roles of a reading consultant and relationships with school and lay personnel (*23*).

Elementary and high schools with active reading programs may have a need for both the reading teacher and the reading consultant. This should be determined through the joint efforts of staff and administrators who have appraised weaknesses and strengths of the reading program and have given careful consideration to the roles of such specialists in the particular school system.

Reading Clinicians

Some cities have developed reading clinics where especially trained clinicians work with severe cases of reading retardation. Probably best known of the public-school-connected reading clinics are those in St. Louis and in New York; Philadelphia also has pioneered in their development. While the organization of clinics varies, the personnel and procedures of the New York City clinics appear to be somewhat typical. The clinical staff consists of a psychologist, a psychiatric social worker, and a part-time psychiatrist. The social worker and the psychologist work closely with the reading counselors in the selection of children for admission to the special reading program. Before a child is admitted to the Special Reading Services Program, the parent is interviewed by the social worker and an initial psychological study of the child is made.

After admission to the program, further diagnostic studies are made; the social worker maintains liaison with the family, and problems are solved as they arise. The pupil's progress as reported by the special reading teacher largely determines the extent of clinical service, a full "work-up" often not being necessary.

> For children who do not respond satisfactorily, a complete study is made by three members of the clinic team. Selection of a child for full study is based on 1) the extent of his problems in the group as observed by the reading counselor; 2) the findings of the psychological study; and 3) the problem as reported by the parent, together with the amount of insight and cooperation which, in the judgment of the social worker, can be expected of the family. After the clinical study is completed, a diagnostic conference is conducted by the psychiatrist for the purpose of integrating the findings. Recommendations are then discussed with the reading counselor . . . (*14*:181-6).

The major reasons for the small number of public school reading clinics are obvious when one analyzes staff requirements: trained reading clinicians, psychiatrists and psychologists, and social workers are both expensive and in short supply. Current Federal and state legislation, directed toward improving the reading skills of disadvantaged pupils, will serve to make clinical personnel even less available.

Few services are as valuable to the pupils of a school district as a reading clinic. A really good one will generally upgrade the reading program for all children. However, clinically trained personnel do not offer the only source of specialized help. Teachers who have the ability to determine a pupil's reading level and to assess the skills he has at his command can make a very real contribution to the instructional program. Chall states that a teacher need not be required "to identify, describe, and treat the 'basic' cause of reading difficulty. Instead she can accept the child's difficulty in learning to read and work with it" (7:440-2).

The statement above was coupled with two suggestions to the teacher: first, that he reorient his attitude and realize that any success in an area where heretofore there has been repeated failure can only be beneficial, no matter what the initial cause of the failure may have been; and second, that the teacher make use of all available tools to identify pupils who are below par in reading, and use the best techniques for helping them overcome their handicaps.

Many schools supplement their regular staff with teachers who have had relatively little clinical training by using them to provide "remedial" or corrective teaching to those pupils who are below their expectancy in reading skill. Such practices appear to be expanding as a result of Federal legislation (particularly the Elementary and Secondary Education Act). No general pattern for their use is as yet apparent. Some systems are trying to *prevent* reading problems, using these supplementary teachers at the primary grades. Other administrators view the problem as one which is remedial in nature, and focus their efforts on pupils in the later elementary grades and in high school.

ELWOOD L. PRESTWOOD

LOWER MERION SCHOOL DISTRICT ARDMORE, PENNSYLVANIA

5. Appraising Reading Program Expenditures

THE LACK OF RESEARCH on the adequacy of expenditures for a school district's reading program, with the consequent lack of objective data needed to determine whether present practice is good or bad, makes it difficult for anyone to set up guidelines for appraising expenditures for the reading program. In the evaluation of total expenditures related to the entire educational program of a district, research has tended to substantiate the correlation between various measures of school quality and expenditure levels.

By identifying expenditures needed to carry out what experts in reading say is a sound reading program, one may be able to arrive at useful guidelines. Here are some based upon the criterion that a sound reading program meets the reading needs of all students who can benefit from reading instruction.

1. *The expenditures provide for the employment of a professional staff that meets the reading needs of all students.*

According to the Educational Policies Commission, the minimum number of professional staff members in good school systems is about 50 per 1,000 pupils. Castetter of the University of Pennsylvania believes that a weighting factor should be used for secondary students in a district to compensate for differences in staffing practices in elementary and secondary education.* He maintains that any school district desiring quality education must have at least 50 well-trained professional employees per thousand weighted pupils. The importance of adequate staff is emphasized by studies like those made by Bliesmer and Yarborough, who found that in grade one methodology rather than materials is most significant in teaching children how to read (*5*:504).

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*Weighted Pupil Staffing Units (½ x total kindergarten A.D.M.) + (1 x total elementary A.D.M.) + (1.1 x total secondary A.D.M.)

As for the number of reading specialists needed on a professional staff, Duda concluded, after studying the recommendations of authorities, investigating actual ratios, and querying workers in the field as to what they thought desirable, that a ratio of one reading specialist per 40 teachers would be needed in a district (*12*:98).

To provide a program that embraces all aspects of reading—developmental, corrective, remedial, recreational, for example—one that really does help students gain independence in reading, a school district must have 50 or more professional employes per thousand weighted pupils.

2. *The expenditures provide the books and reading materials needed to meet the needs of all students.*

Perhaps this guideline can be translated into a usable figure by relating it to what is now being spent. According to a recent survey conducted by *School Management* (March, 1966), the median district in the United States is spending $4.97 per elementary school pupil for textbooks and $6.15 per secondary school pupil. The top ten percent of the districts spend $10.00 per elementary school child and $11.73 per secondary school student. An analysis of the recommendations for the maintenance of an adequate supply of textbooks made by the Study Committee of the American Textbook Publishers Institute shows that 32 percent of the textbook dollar should be spent at the elementary school level on books for the reading program—assuming that the reading program does not encompass the total educational program. If this percentage is being followed, today's average district is spending at least $1.59 per elementary school child on books for reading instruction and districts in the upper ten percent at least $3.20. If the same 32 percent is being applied in the secondary schools for books for the reading program, then the expenditures being made this year are $1.97 per secondary school pupil in the average district and $3.75 in the upper ten percent of the schools.

For library books, the median district nationally spends $2.25 per pupil for elementary school library books and $3.27 for secondary school library books. The upper ten percent of the nation's districts are spending $4.63 per elementary school child and $6.71 per secondary school student. The American Library Association recommends minimum expenditures from four to six dollars per student on library books.

In addition to these amounts for textbooks and library books, the average district spends $11.00 per pupil for teaching materials. The top ten percent of the districts are spending $20.19 per student. Unfortunately, no figures are available to show what proportion of these expenditures is made for reading materials.

The adequacy of the expenditures of the kind quoted can be judged only in relationship to how well the needs of all students who can benefit from reading instructions are being met.

3. *The expenditures result in the entire faculty's contributing to the reading program's effectiveness and operation.*

Time must be provided for the total staff to plan cooperatively the reading program. A district must sponsor a well-planned, continuous program of in-service education in reading that provides all kinds of approaches, including visitation to, and demonstration by, master teachers in the district. All faculty members can learn how to teach specific reading approaches in their own content fields. The in-service program must meet the needs of new teachers as well as of experienced staff members. The amount of money needed for making Guideline 3 operable depends upon many factors: size of district, turnover of staff, training of staff, and so on.

4. *The expenditures provide for a continuous evaluation of the reading program in terms of whether student reading needs are being met.*

Costs of effective evaluation of a reading program are not isolated by districts to make it possible to indicate what actual practice reveals or what a school should spend. Information of an objective nature for this guideline as well as for the others is sorely needed if budgets are to be appraised in a realistic way.

ELWOOD L. PRESTWOOD

6. Criteria for Selection of Reading Materials

REGARDLESS OF THE AMOUNT of money spent by a district for reading materials, it is important that it be spent well. By adhering to a good set of criteria, a school should be able to secure an effective return for every dollar it expends for reading materials. An excellent set of criteria for selecting and evaluating reading materials, developed by Robinson and Rauch, can be found in their book *Guiding the Reading Program* (*23*). The discussion that follows quotes the criteria and is based upon them.

1] "Materials should be selected and evaluated for suitability in achieving the objectives of a reading program."

The objectives of a reading program should be determined cooperatively by the entire staff or by an adequate representation of it. They should provide for the reading needs of gifted students, normal students, slow-learning students, and disabled readers. To be appraised suitable the materials must help teachers achieve the objectives designed to meet the needs of all the students who can profit from reading instruction.

2] "Materials should be selected and evaluated in relation to a plan for continuous development. Materials directed toward reading instruction should provide for development of a systematic sequence of skills."

Growth in reading is developmental; that is, it follows a pattern whereby a specific phase appears at or about a certain period in the life of the individual, successful achievement of which leads to success with later phases. The learning of each new skill and ability builds upon previous learning. Consequently, materials should be selected that provide for well-organized, sequential development of the skills and abilities needed by the proficient reader. All materials must be examined critically to determine whether they do facilitate developmental growth in reading.

Criterion two applies to materials for corrective and remedial reading just as it does to those for reading in the regular classroom approach. All materials selected for instruction, whether they are intended for use with a disabled reader or a gifted reader or any other kind of reader, should fit the plan the school follows for continuous development.

3] "Materials used for skill development in supplementing a basic program must be specifically related to the particular skill in which a given student or group of students is deficient."

Staff members must examine supplemental materials with a sharp critical eye, and not rely upon statements indicating their intent. Too frequently materials designed to improve comprehension use exercises that really call for the use of but one comprehension skill, for example, questions requiring the recall of details. Such materials may be of little value for pupils whose need lies in learning how to draw conclusions or how to secure implied meanings. Once the skill deficiency of a student is determined, the supplementary materials selected must have the elimination of that deficiency as their chief target.

4] "Materials should be at the appropriate level of difficulty (in terms of both skill and personal maturity) for the students concerned."

Not only must the materials be specifically related to the particular skill or ability in which a student is deficient, but also they must be at the appropriate level of difficulty if he is to learn. If they are too easy, he will be bored and will not profit from them; if they are too difficult, he will be frustrated and dislike the task set for him. A careful check of a student's personal maturity must be made if materials are to be appropriate in the concept load, a factor which all too frequently is disregarded when materials are selected. Unnecessary reading disabilities are sometimes created because little or no attention is paid to the appropriate level of difficulty of the concepts included in the reading materials given to a pupil in the instruction program.

Appropriate difficulty does not mean that materials should not be challenging. They should be stimulating. But a student, although challenged, should be able to experience success as he learns. Using criterion four effectively requires the use of keen insights by the person assigning the materials to pupils.

5] "Although all materials will not be of equal interest to all students, materials should be chosen and evaluated in accordance with realistic needs and interests of the student or group of students concerned."

If the reading program is to result in a student's reading at the independent level without the pressure of assignments, some attention must be paid to the interest that the materials arouse in the students. Of course, expert teachers can and do help pupils develop interests which can and often do create within them desires to read certain books. Interest created by the reading materials themselves generates effort.

The ultimate in reading materials will be achieved when they contain inherent motivation that entices the students to read. Although teachers will have to select materials that are related to the realistic reading needs of their students, they may not disregard the interest-appeal the materials have.

6] "Materials should be selected and evaluated in relation to broadening the students' intellectual and emotional experiences."

Obviously this criterion indicates that a teacher cannot rely on a single textbook to meet the needs of all students. Individual differences demand that a wealth of reading materials be available for expanding and creating both intellectual and emotional experiences.

To make criterion six effectively operable, according to Herrick, a school must "(a) provide for interest areas of reading, (b) provide content necessary to meet varied educational needs, (c) 'trigger' reading in different kinds of materials for the full range of purposes for which a child might read, and (d) adapt the level and rate of reading development to the wide range of differences that exist among children" (16:166).

One of the best means of providing the kinds of material referred to by Herrick is the school library. Schools have much to do in this area. Today there is a great lack of libraries. In 1963 it was reported that over ten million American students were going to schools "bare of any libraries at all." Many of the libraries in existence were "appallingly inadequate." Provision of materials for broadening student intellectual and emotional experiences and for meeting individual differences can be made most adequately and usually most economically through well-stocked libraries.

7] "Practice materials should be appropriate to the purpose for which they are used and should maintain a balance between success and challenge."

Since a reading program should be designed to help all students who can profit from reading instruction, it must serve many purposes. Practice materials, when used, must be chosen to meet specific purposes if they are to assist students in the mastery of reading techniques. Materials that stress word-recognition skills, for example, should not be expected to develop the ability a student needs in tying interpretation to critical reaction.

Once materials have helped a student to begin his mastery of a skill or ability, subsequent materials used by him should increase in difficulty at a pace that will not defeat him in his task. As Bond and Wagner put it, "from time to time the child must have material with which he has to 'tussle'; but there should always be a reasonable chance that he will win the 'tussle'" (6:78). One may never forget that it is essential to maintain a balance between success and challenge for the student as he strives for higher levels of efficiency. Practice materials chosen for specific purposes and selected with this balance in mind are most valuable assets in the reading program.

8] "Materials should be varied enough in content, type, length, interest, and point of view so that students may have many different kinds of reading experiences, including abundant opportunities for voluntary reading."

Reading, a most complex process, requires a wide variety of materials if all the purposes of an effective program are to be realized. Obviously materials that vary in length are important. Usually short selections are most appropriate for the beginning of instruction intended to develop a new skill. Later, selections of considerable length can be used to cement the mastery of the skill.

Fiction and factual materials of all kinds must be among the reading materials if a school is to provide a wealth of reading experiences. They should include a variety of approaches and interpretations to enable students to secure a realistic understanding of the world. Materials presenting different views on a simple topic are essential in the development of critical reading.

Materials that give a realistic, truthful view of the world are particularly needed. They can be useful in helping today's mobile children and youth adapt to new environments. Thirty-eight million Americans, one of every five, changed residence between March, 1964 and March, 1965. Half of these moved from one state to another. Three out of five live in urban areas, most of which have multi-cultural populations.

9] "The authors of materials for both instructional and recreational uses should be experts in their field; authors of instructional materials, in particular, should also be aware of the developmental needs and interests of students."

When one stops to list just a few of the items an author of reading materials must keep in mind when he develops them, he must conclude that experts are indispensable in preparing what teachers require if they are to do an efficient job in teaching reading. Here are just a few matters that an author may have to consider as he writes: appropriateness of vocabulary for his reading audience; such reading skills as following directions, reading for details, determining the proper sequence of events in terms of time, and reading to make inferences; concepts appropriate for different ages of pupils; interests of boys and girls at different stages of development; and knowledge that provides accurate information for the content included in the materials.

10] "Students should have the opportunity to select and evaluate materials. These judgments by students are of value to the teacher in his own selection and evaluation of reading materials."

According to Herrick, one aspect of the sequence in the teaching of reading, "is found in the child and his reading experiences. . . . Here the learner assumes increasing responsibility for the continuity of his learning and for the relating of reading materials to his own development and purposes. There is an increasing body of knowledge about the ability of the child in self-selection [even] at the early periods of his education . . . any adequate program of reading instruction should help the child increase his ability to select and use his reading materials so as to achieve his reading purposes" (*16*:166).

The pupil learns to read by reading. Freedom of choice may motivate a student to read far more than if he is compelled to rely completely upon teacher judgment. Given the opportunity, he will evaluate materials in such a way that a teacher will be able to use effectively the peer evaluations with other students.

Criterion ten is vitally important in a program designed to help students become independent readers. And this objective should be the keystone of all reading programs!

Putting to effective use the ten criteria as briefly presented here requires skill, knowledge, time, and a wealth of materials from which to choose. If the school dollar spent for reading materials is to bring the returns in learning that it should, then school district staffs must be willing to apply such a set of criteria.

Summary

This section represents a rather incomplete composite of facts and ideas related to the concerns of administrators and reading specialists who are thinking seriously about their reading programs. Many ideas are included; no doubt an equal number are not considered; without question a few ideas need much further development. This will be done in a volume now under preparation by a committee of the International Reading Association.

To take some of these ideas and investigate them in depth is obviously a next step for those anxious to improve reading instruction in our schools. Realistic progress is only possible through the joint efforts of administrators at all levels, reading specialists of all kinds, state department personnel, and college trainers of reading specialists.

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